

COMMUTE PROFILE 2001

A Survey of
San Francisco Bay Area
Commute Patterns

RIDES for Bay Area Commuters, Inc.
September 2001



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COMMUTE PROFILE 2001
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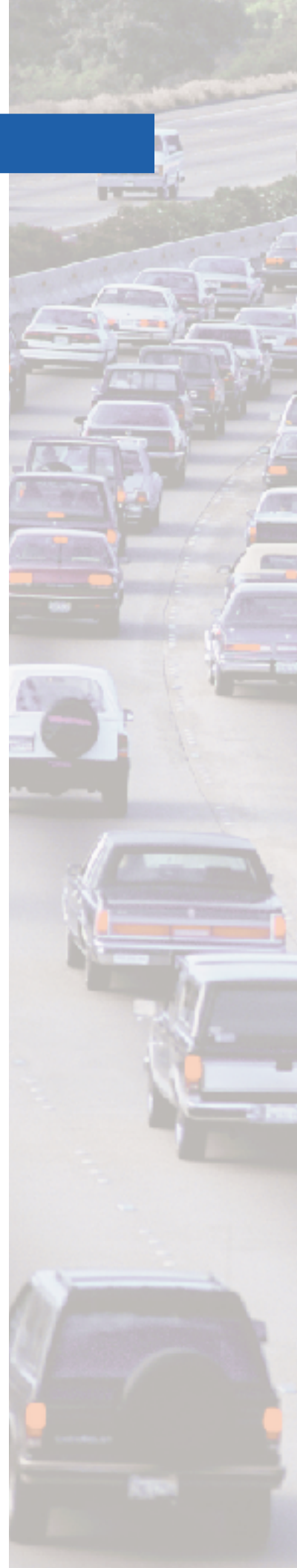
Telephone surveys by Strategic Consulting & Research
Irvine, CA

Printing by Chimes Printing
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Key to Icons



Drive Alone



Motorcycle



Carpool



Walk



Vanpool



BART



Bus



Ferry



Transit
Transit includes buses,
trains and ferryboats



**Caltrain/
Commuter Train**



Bicycle



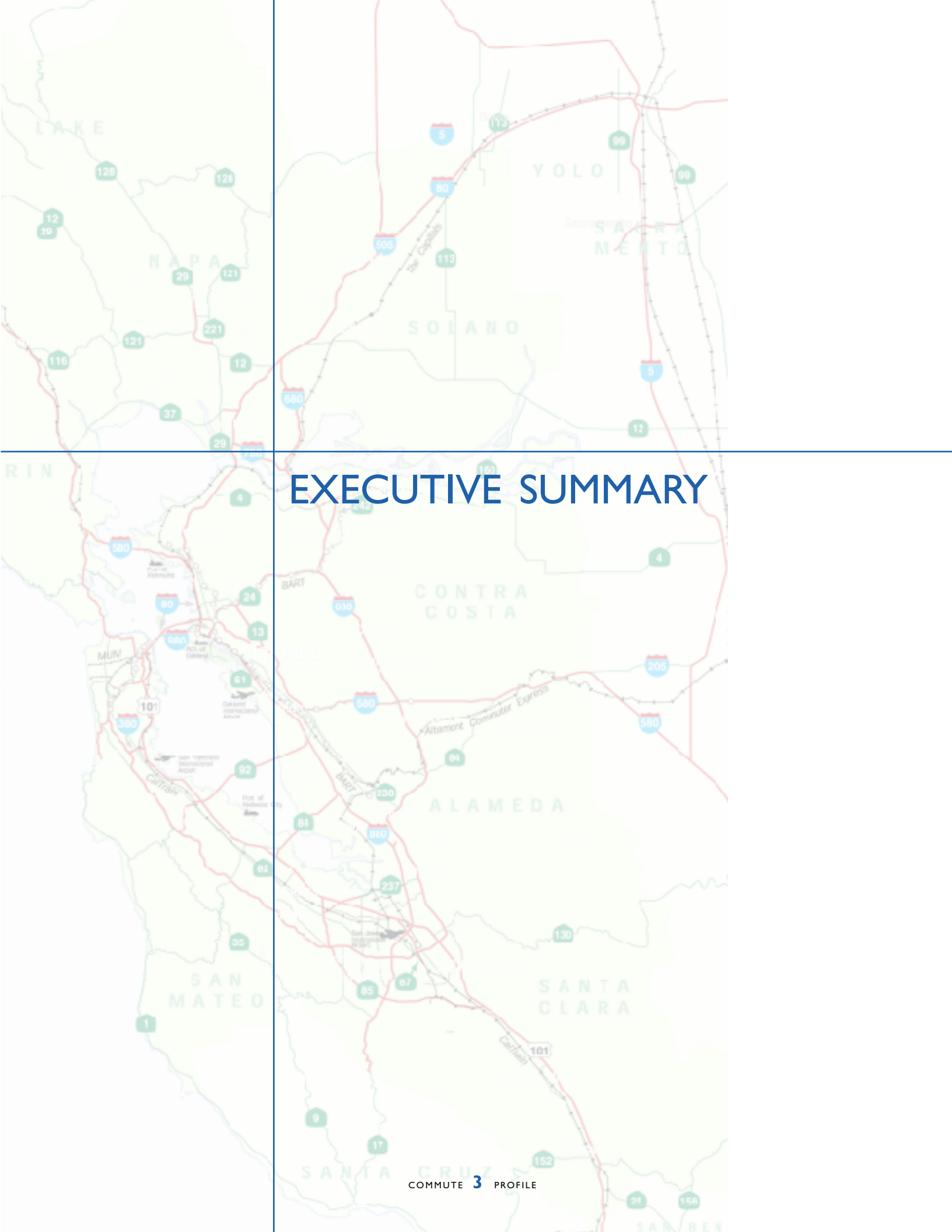
Telecommute



Light Rail

OTHER

See footnotes on tables and
figures for specific definitions.

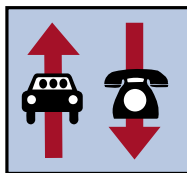


EXECUTIVE SUMMARY

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EXECUTIVE SUMMARY

This is the ninth edition of Commute Profile. It is the Bay Area's only annual ongoing study that focuses on commuters and the decisions that influence their choice of travel mode to work. Commute Profile is based on a survey of commuters who live in the nine county Bay Area. The survey is designed to track the commuting patterns of residents, to better understand behavior and motivation inherent in selecting a commute mode and to define and segment the market. The report is presented in two main sections. The Regional Profile examines a single weighted data set of the nine Bay Area counties. Within this section are comparisons with past years of travel patterns, motivation and awareness for the region as a whole. The second section profiles each of the counties individually. Within this second section, a core set of the data are examined to provide a perspective on how commute patterns vary on a county-by-county basis.



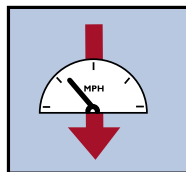
Commute modes are looked at with an added level of detail in this year's report. Commuters

are asked to describe their primary commute mode, any connecting modes they use in conjunction with their primary mode and any modes they use on an occasional basis in place of their primary mode. The

travel mode data that appear most comparable to previous years are the combination of primary and connecting modes. Comparisons with previous years show a slight decrease in driving alone and a slight increase in carpooling.

Because commute mode data was collected in more detail, it is necessary to compare primary, connecting and occasional modes from this year with "primary mode" data from previous years.

Carpooling is the one mode that shows an increase both as a primary mode and when primary and connecting modes are combined. Telecommuting is the only mode that shows a decrease in both cases; its use as an occasional mode, however, is up from previous years.



Despite considerable attention given to some of the Bay Area's long-distance commutes, the

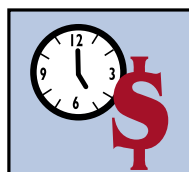
average commute distance has increased by less than one mile since the first Commute Profile survey in 1992. The percentage of commuters classified as long distance (41+ miles one way) has actually decreased slightly in the last couple of years from 8% in 1999 to 6% in 2001. Travel time also decreased slightly from last year but not as much as trip distance.

Consequently, travel speed has reached an all-time low. Commuters currently travel at an average speed of 29.5 miles per hour. This is four miles per hour slower than the 1993 travel speed or a decrease of about a half mile per hour per year.



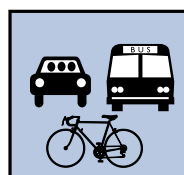
About four of every ten commuters have a carpool lane along their route to

work. Of those who have a carpool lane along their route and travel by carpool, vanpool or transit, six of ten use the lanes on a regular basis. They are doing so with substantial travel time savings. Not only do 80% of carpool lane users save time, but they save an average of 23 minutes on their way to work. The time saved has increased steadily over the last three years; in 1999 the average time saved was only 16 minutes. Most likely as a result of the travel time advantage, the majority of respondents (60%) indicated that they would not continue to carpool, vanpool or use transit if the carpool lanes did not exist.



Driving alone is clearly the most popular and available option; 95% of respondents have a vehicle available for their commute,

and the number one reason commuters drive alone is because they feel they have no other option. Commuters who drive alone are more likely than the average commuter to be male and have somewhat higher incomes. Carpoolers, who are more likely to be female and younger, are motivated by travel time, needing a vehicle to transport children and commuting costs. Carpoolers tend to have the longest commutes averaging about 22 miles each way. Transit riders are motivated to a large extent by commuting costs; they also tend to be younger than the average commuter. Commuters who bicycle, walk and use other modes do so because they find them quicker than other modes and more relaxing. These bicyclists, walkers and other mode users are more likely to be younger and male. They tend to have the shortest commutes averaging just over four miles each way.



One measure of how the regional transportation system in the Bay Area is developing is the

ease with which commuters can use alternatives to driving alone. This is the first year these questions have been included in the survey so it is not possible to compare with earlier years. However, looking at the first year of data reveals a relatively opti-

mistic picture with more transit riders, carpoolers and bicycle commuters indicating that using those modes has gotten easier (compared with those indicating it has gotten more difficult to use those modes) over the last year. Improvements were due to new and more reliable transit service, more carpoolers to share a ride and new bicycle lanes.

In addition to the reason commuters use their current mode and the ease with which commute alternatives are used, the Commute Profile survey attempts to identify how possible drive-alone commuters perceive their use of another mode. Carpooling is the option that the highest percentage (about 25%) of respondents believe is a potential option for them. The percentage of respondents indicating that transit is a potential option has increased significantly in the past three years from about 13% in 1999 to 22% in 2001. Interest in bicycling has increased at about the same rate as interest in transit. The one key demographic that stands out for the higher potential users of transit, carpools and bicycles is that they are younger than the average commuter.

Commute distance and the respondent's county of origin also seem to influence the likelihood of using a commute alternative. Commuters

who travel a moderate distance to work (6-10 miles) are the most likely to see carpooling as a higher potential option. Commuters who travel short distances (less than 6 miles) are the least likely to view carpooling as an option but the most likely to consider transit a realistic option. Long distance commuters (over 41 miles) are the least likely to consider transit a viable option. Commuters who begin their commute in Solano County are the most positive about carpooling, and commuters who begin their commute in Marin County are the least positive about carpooling. San Francisco-based commuters are the most likely to view transit as a possibility; Sonoma residents are the least likely to view transit as a possibility. Bicycling to work is most viable for Napa and San Francisco commuters and least likely for Contra Costa and Solano commuters.



An important function of Commute Profile is to track awareness of programs and incentives related to commute alternatives.

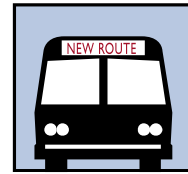
This year's study looked at awareness of RIDES, Solano Commuter Information, 817-1717 phone number, guaranteed ride home programs, public transit tax breaks and Internet-based traveler information.

Awareness of RIDES and the 817-1717 service (the only two that have been tracked for a number of years) are both down substantially. Awareness of RIDES is less than half of what it was in 1992. Awareness of 817-1717 is almost half of what it was in 1998.



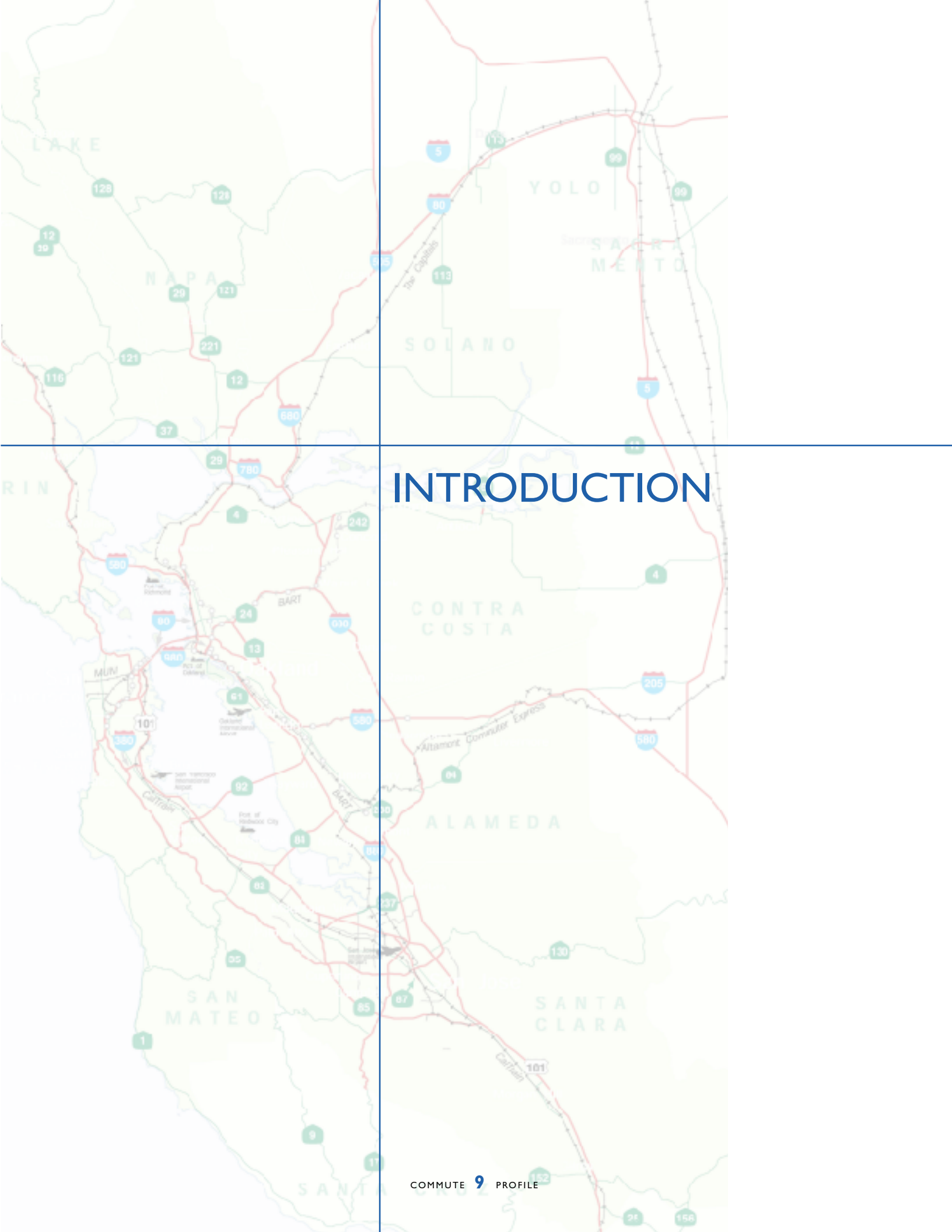
A series of questions about awareness, use and functionality of Park and Ride lots was included in Commute Profile 2001. About one of ten respondents, those who had used a Park and Ride lot, were asked to rate specific characteristics of the lots. The results were

consistently positive. In general, Park and Ride lots are perceived as convenient, well-maintained and safe places to leave a car by commuters who had used the lots.



Finally, in the County Profiles section we've introduced a table that summarizes

respondents' perceptions of commute conditions and options available to them; it combines several questions geared toward the ease of travel and the ease of use of means other than driving alone. The data are summarized for each county.



INTRODUCTION

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INTRODUCTION

This section describes Commute Profile's history and methodology.

Between late March and mid-May 2001, RIDES conducted the Bay Area's ninth Commute Profile survey. RIDES operates the Bay Area's Regional Ridesharing Program under contract to the Metropolitan Transportation Commission (MTC). Commute Profile is an annual region-wide telephone survey of commuters. The study is designed as a market research tool to help the Regional Ridesharing Program and others better understand Bay Area commute patterns. Commute Profile is unique among Bay Area surveys in that it focuses on commuters, their travel behavior and changes that occur over time.

To track commute trends over time, Commute Profile has retained a group of core questions. The core questions include:

- Commute Modes
- Factors that Influence Mode Choice
- Travel Conditions
- Commute Distance and Time
- Use of HOV Lanes
- Influence of Employers and Employment Sites on Travel Behavior
- Potential Use of Options to Driving Alone

- Awareness of Commute Information Services
- Internet Access and Use
- Demographic Information

Additional questions are rotated each year depending on current topics of interest to MTC and other partners who participate in the planning of Commute Profile. These rotating blocks of questions add an important element of flexibility to the study. This year's survey included more detailed questions on travel mode, questions looking at changes in the ease of using transit, carpools and bicycles for the trip to work and questions about the usefulness of Park and Ride lots.

Methodology

The target population for Commute Profile is adults over the age of 18 who are employed full-time (35 hours or more) outside the home. This is a key customer group for the Regional Rideshare Program's services, and it approximates the journey-to-work subgroup from the Census. The Census, however, includes part-time workers, students and people who work at home—making the data sets not fully compatible.



The sample size for Commute Profile has varied from year to year as a result of budget considerations (Table 1). Larger sample sizes allow for more accurate regional data and for data that are meaningful at the county level. The year 2001 survey included a regional sample of 3,600 or 400 for each of the nine counties.

Between March 26 and May 18, 2001, a market research consultant administered telephone surveys to 3,600 Bay Area residents. Phone numbers were randomly generated, and calls were made in the evenings or on

weekends. The interviews were divided between counties as shown in Table 2. For the region-wide analysis, a weighted data set of 3,616 responses is used. The weighting is based on employed residents per county (Table 2). For the county-level analysis, the original data are used to provide the maximum sample size.

Commute Profile data are based on samples and, as with any sample, some of the year-to-year fluctuations are due to normal sampling error. The region-wide population of employed residents is estimated to

TABLE 1
Commute Profile Historical Summary

<i>Year</i>	<i>Completed Questionnaires</i>	<i>Counties With Full Sample</i>	<i>Direct Costs Budget¹</i>
1992	1,600	1	22,245
1993	2,800	6	40,325
1994	3,200	7	44,600
1995	1,090	2	11,844
1996	3,450	8	41,152
1998	1,608	2	19,000
1999	3,628	9	42,000
2000	3,600	9	42,670
2001	3,600	9	44,740

¹This is the budget for acquiring the sample, conducting the telephone interviews and delivering a clean data set. It does not include questionnaire design, analysis and report preparation. RIDES staff time for these tasks is approximately three months (0.25 FTE).

be 3,500,000. The regional sample of 3,600 has a normal sampling error rate of two percent and a confidence level of 98 percent associated with it. A two percent sampling error means that if the survey was conducted 100 times, one would be confident that 98 times out of 100, the characteristics of the sample would reflect the characteristics of the population within plus or minus two percent. County populations, based on employed residents, vary from 62,000 (Napa) to 929,000 (Santa Clara).²

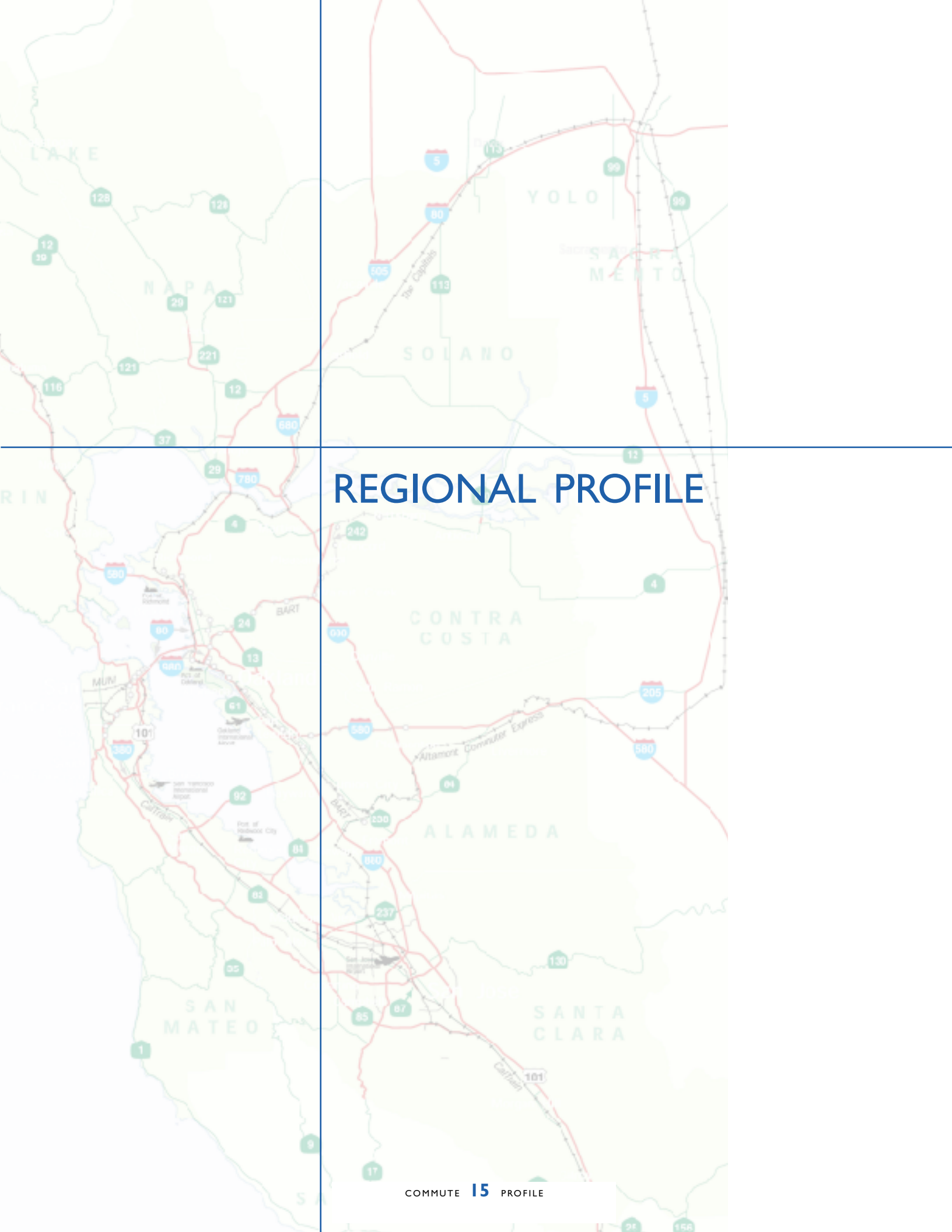
The samples of 400 from each county have a normal sampling error of five percent and a confidence level of 95 percent associated with them. For the analysis of smaller subgroups, the sampling error increases. For subgroups of approximately 270, the sampling error increases to six percent with a confidence level of 95 percent, and for subgroups of approximately 200 the sampling error increases to seven percent at a confidence level of 95 percent.

TABLE 2 Distribution of Interviews by County		
County	Completed Interviews	Weighted Sample for Regional Analysis
Alameda	400	1.84
Contra Costa	400	1.16
Marin	400	0.36
Napa	400	0.15
San Francisco	400	1.12
San Mateo	400	1.00
Santa Clara	400	2.35
Solano	400	0.47
Sonoma	400	0.54
Total	3,600	

²Population estimates are based on ABAG Projections 2000.



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REGIONAL PROFILE

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HOW BAY AREA RESIDENTS COMMUTE

This section discusses primary, connecting and occasional commute modes, commute distance and time, carpool lane use and telecommuting.

Commute Mode

This year's Commute Profile includes a more detailed look at commute modes. In addition to the "primary" mode of travel (defined as the part of the trip that covers the greatest distance), data has been gathered on "connecting" and "occasional" modes. Respondents were asked if their entire commute trip was made using one mode or if their normal trip to work involved the use of multiple or connecting modes. If the number of days per week an individual used their primary mode did not match the number of days per week worked, they were asked what additional modes they used on an occasional basis.

Driving alone, carpooling and transit have retained their respective positions as the number one, two and three primary commute choices (Figure 1). Beyond the traditional ranking there are several minor variations from previous years. For example, driving alone as a primary mode

only has increased about 2% and carpooling has increased about 3%. Moving in the other direction, BART use, bicycling and telecommuting together have decreased almost 5%. It is unlikely, however that this reflects an actual decrease in BART ridership,³ bicycle use or telecommuting. It appears that some of the variation may be due to normal sampling error and some may be related to the collection of more complete information on travel mode. For example, in previous years respondents who indicated their primary mode as a BART and drive combination would likely have been classified as primary mode BART. With the more detailed questions this year, respondents would have been separated into primary and connecting modes; the result being a primary mode classification in the 2001 survey that is not completely comparable with earlier years.

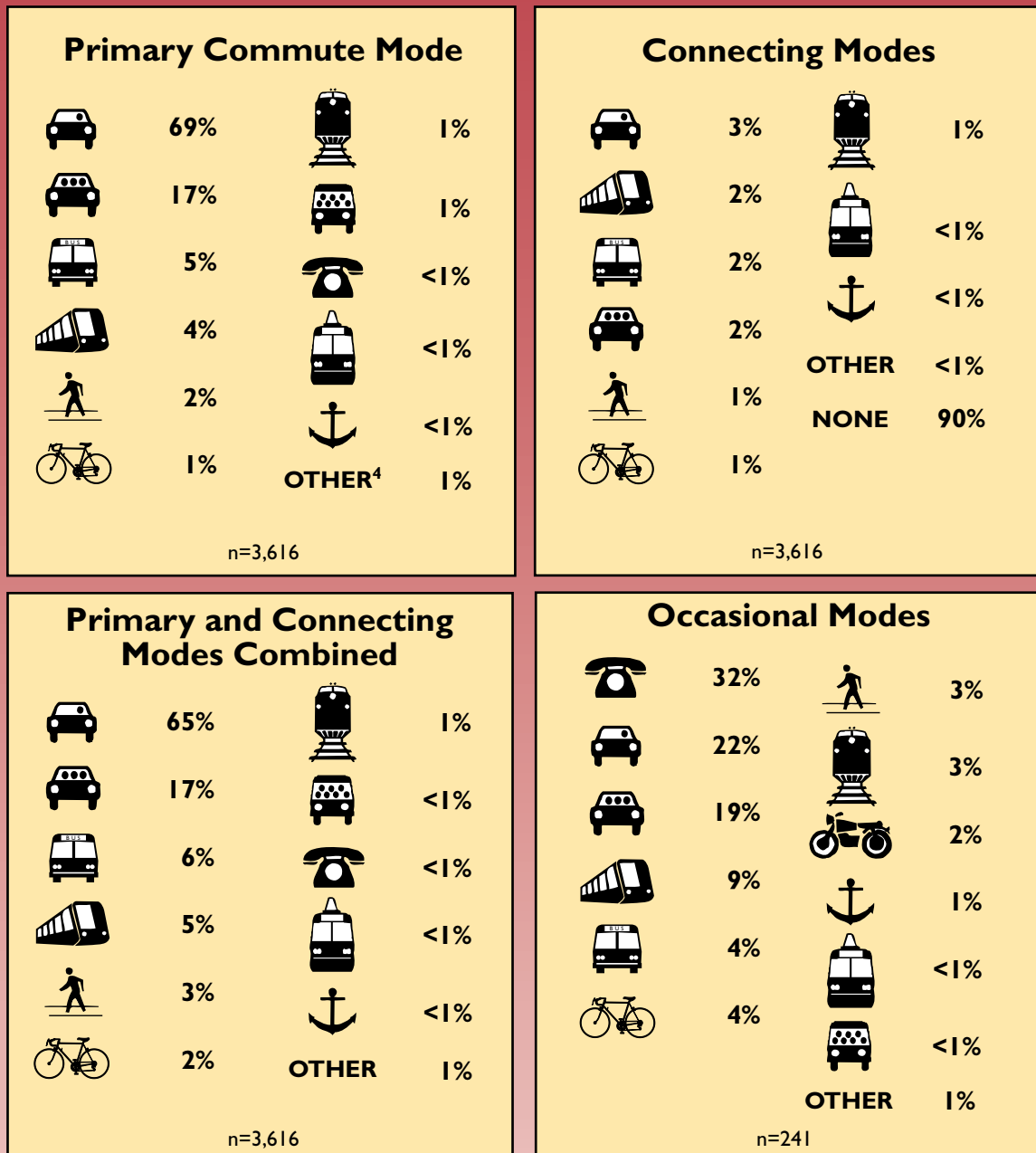
As mentioned earlier, Commute Profile respondents were asked if their entire work trip was made with a single mode or if the trip involved the use of multiple or connecting modes (Figure 1). Approximately 10% of respondents indicated that

³BART ridership actually increased between April 2000 and April 2001. AM peak period ridership increased from 82,000 to almost 94,000 during that time period. The Commute Profile estimate is 3.5% of 3,500,000 employed residents or about 123,000 commuters. Given that not all Commute Profile respondents travel in the peak period, the estimate seems reasonable.



FIGURE 1

Commute Modes






⁴Other refers to motorcycles, taking a taxicab to work and a couple of miscellaneous responses.

their normal commute trip involved the use of more than one mode. The most popular connecting modes are driving alone, BART, buses and carpools. Since this is the first year this data has been collected, it is not yet possible to compare the response with earlier years.


Table 3 shows some additional detail on connecting mode users. The primary and connecting modes have been clustered in four groups (drive alone, carpool, transit and other⁵) for easier comparisons. Transit users were the most likely to indicate the use of connecting modes on their normal commute trip—45% use a

connecting mode and they are most likely to drive to connect with transit. Drive-alone commutes were the least likely with only 5% using a connecting mode. Fifteen percent (15%) of "other" mode users and 11% of carpoolers use connecting modes. The table shows, for example, that of the drive-alone commuters who use a connecting mode, 21% drive to meet a carpool, 57% to get to transit and 22% to connect with an "other" mode.

Combining primary and connecting modes provides the most complete picture of respondents' normal journey to work (Figure 1). Overall, the

TABLE 3				
Primary Mode by Connecting Mode				
Primary Modes	Connecting Modes			
				OTHER
DRIVE ALONE 5% of drive alones n=128		21%	57%	22%
CARPOOL 11% of carpoolers n=80	25%	19%	44%	13%
TRANSIT 45% of transit users n=167	40%	12%	28%	20%
OTHER 15% of other mode users n=21	57%		38%	5%

⁵ "Drive alone" includes motorcycles and taxis; "carpool" includes vanpools; "transit" includes buses, trains and ferryboats; and "other" includes bike, walk and telecommute.



combined primary and connecting modes provide results more similar to last year's primary mode. The main difference compared with the primary mode alone is a lowering of the percentage of drive-alone trips and an increase in the percentage of BART and bicycle trips. Compared with last year's results, driving alone shows a decrease of about 2%. One difference between this year and last year that remains consistent in both comparisons (of primary mode and primary/connecting mode combined) is an increase of about 3% in the number of carpoolers.

Occasional Mode

Just less than 7% of respondents indicated that they use an occasional mode. An occasional mode is a completely separate mode used on days when commuters do not use their normal mode of travel for their trips to work (Figure 1). Telecommuting is the most popular occasional mode with almost a third of respondents indicating that they telecommute occasionally. Driving alone and carpooling are the two next most commonly used occasional modes. This varies from previous years where driving alone was identified as the most frequently used occasional

mode. The increase in telecommuting identified this year as an occasional mode may account at least in part for the decrease in telecommuting as a primary mode.

To facilitate a comparison of changes over time, primary commute modes are clustered in four categories⁶ (Figure 2). The 2001 numbers are consistent with earlier years. Transit usage shows the biggest change from earlier years and is actually the lowest percentage recorded for that category to date. As mentioned earlier, this may be at least partially attributable to the collection of connection mode data.

Carpooling is the one category that does appear to have increased. It is comparable to 1996 and earlier. However, it is important to note that there was a change made in the methodology used to classify car-pools in 1998. This change has the impact of shifting about two percentage points from carpooling to driving alone for 1998 through 2001. Under the old methodology carpooling would be at approximately 19%—equaling the high recorded in 1995 and clearly above the levels recorded in 1999 and 2000.

⁶“Drive-alone” includes motorcycles and taxis; “carpool” includes vanpools; “transit” includes buses, trains and ferryboats; and “other” includes bike, walk and telecommute.

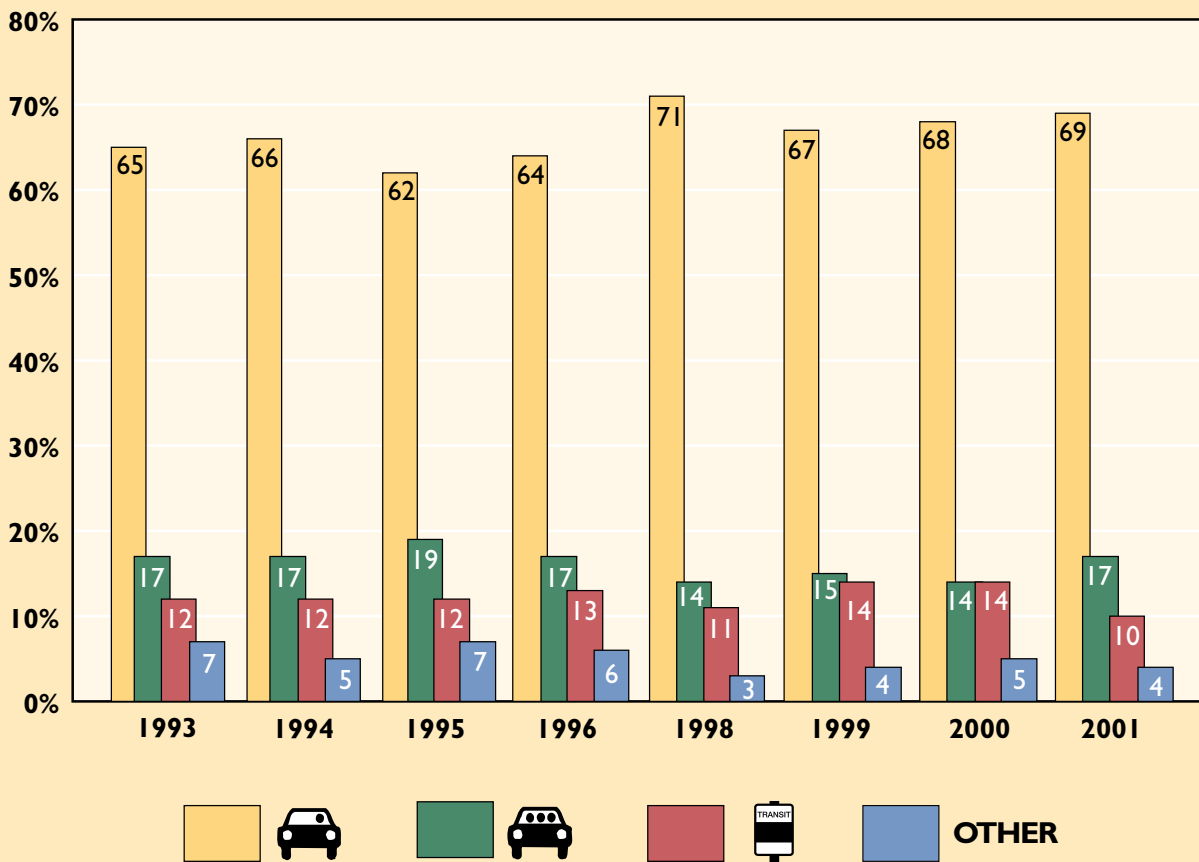
County Comparisons

Commuters who live in Santa Clara and Sonoma are the most likely to drive alone (Figure 3). San Francisco commuters are the least likely to drive alone to work; they have the highest transit and "other" mode use

and the lowest carpooling rate.

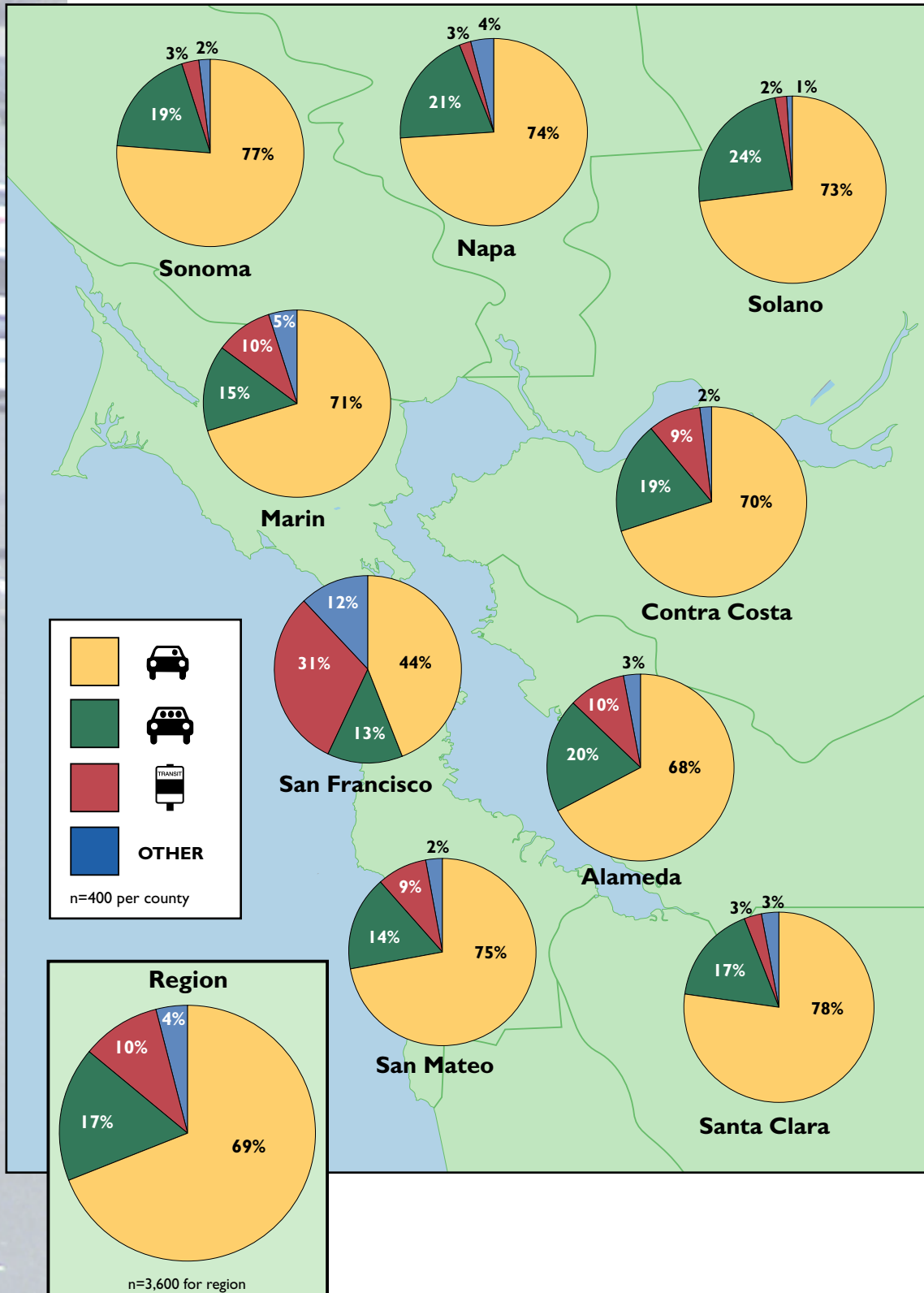
Solano tops the chart for the carpooling category (which also includes vanpools) and, along with Napa, shows the lowest transit usage. Santa Clara and Sonoma counties also show lower transit use.

FIGURE 2
Clustered⁵ Primary Modes Over Time



⁵"Drive Alone" includes motorcycles and taxis; "carpool" includes vanpools; "transit" includes buses, trains and ferryboats; and "other" includes bike, walk and telecommute.

FIGURE 3
Commute Mode Clusters by County



Commute Distance

Respondents to Commute Profile were asked the distance they travel to work and time it takes them to make that trip. Since 1992, the regional commute distance has changed remarkably little (Figure 4). The average for all years combined is just less than 16 miles one way. The recent data on commute distance appear to point to a relatively flat trend. It is worth noting that the Commute Profile sample does not include counties adjacent to the core nine Bay Area counties, such as Stanislaus and San Joaquin, which eliminates some of the longest commutes in the "greater Bay Area" from this study.

To examine commute distance from a different perspective (i.e., different from the averages shown in Figure 4), Table 4 shows the percentage of commuters that fall into five mileage ranges. Over a quarter of Bay Area commuters travel less than five miles to work. Long distance commuters (41 miles or more) are still

the smallest segment of the commute market. Overall there have not been significant changes in the percentage of commuters in each of the mileage groupings. This is consistent with the minimal variation noted in the average distances.

Short distance commuters are the least likely to drive alone and the most likely to participate in a biking or walking mode (grouped as part of "other" in Figure 5). Interestingly, transit usage is highest among the shortest and longest distance commuters. Shorter distance commuters

FIGURE 4
Average Regional Commute Distance (one-way)

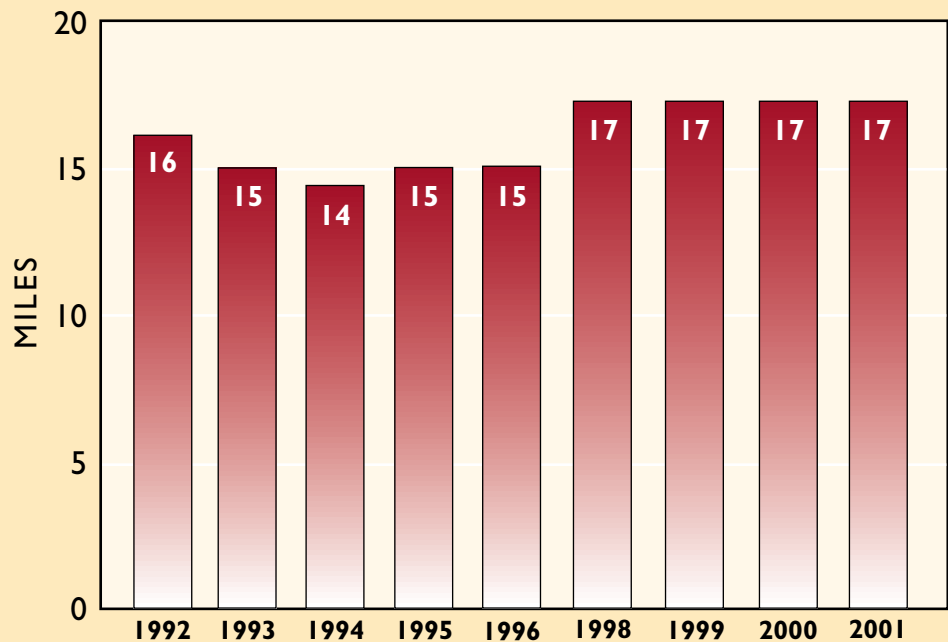
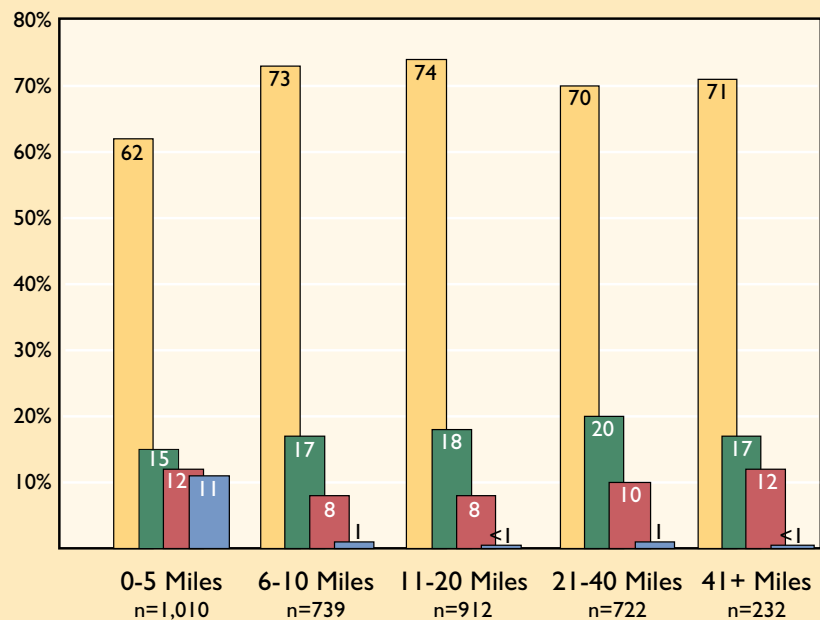


TABLE 4
Commute Distance Over Time


One-Way Miles	1996	1998	1999	2000	2001
0 - 5 miles	33%	25%	28%	28%	28%
6 - 10 miles	20%	20%	20%	17%	20%
11 - 20 miles	25%	28%	26%	26%	25%
21 - 40 miles	16%	21%	19%	22%	20%
41 miles +	7%	7%	8%	7%	6%
n=	3,188	1,171	3,572	3,608	3,615

FIGURE 5
Commute Mode by Distance




Avg. Miles
17


Avg. Miles
22


Avg. Miles
17

OTHER
Avg. Miles
4

may be more likely to find a direct transit link between home and work and longer distance commuters may appreciate the lower cost and "useable time" advantages of transit. Carpooling is highest among commuters who travel 21 - 40 miles, and those traveling between 11 and 20 miles are the most likely to drive alone, but the differences are relatively small beyond the 0 – 5 mile group.

County Comparisons

The year-to-year changes are generally not dramatic for most counties, but with four individual years of data to compare (over a six-year period) some noteworthy observations can be made. Solano-based commuters still have the longest average commute distance, although the gap between Contra Costa and Solano appears to be closing (Table 5). In 1996, the difference was almost six miles, and in 2001, the difference is only two miles. San Francisco and Santa Clara traded places as the county where residents have the shortest average commute distance. The difference, however, is small and the drop in Santa Clara commute distance goes against earlier trends (indicating that it may be more related to normal sampling error than an actual change). Napa residents commute actually showed a decrease of

TABLE 5
Average One-Way Commute Miles by County of Residence

County	1996	1999	2000	2001
Solano	23	27	27	25
Contra Costa	19	21	22	23
Sonoma	19	21	20	20
Napa	19	19	20	18
Marin	16	17	18	18
Alameda	16	17	17	17
San Mateo	16	15	16	16
San Francisco	9	11	12	13
Santa Clara	14	14	14	12

almost two miles between 2000 and 2001.

Commute Time

Although the average number of minutes it takes to travel to work dropped from the all time high recorded in 2000, it is still up considerably from previous years—supporting an upward trend in travel time (Figure 6). The slight shortening of travel time is actually in line with the slight decrease in mileage.

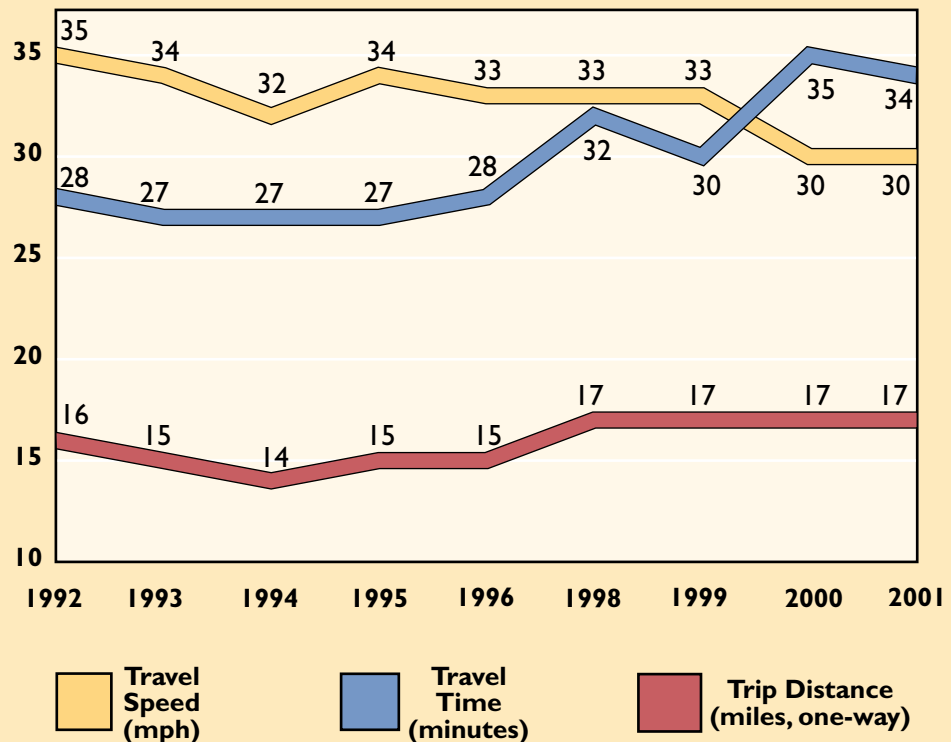
Based on the data gathered on distance and time, travel speeds were calculated. The combination of relatively long travel time and slightly shorter mileage, however, has produced the slowest travel speed to





FIGURE 6

Travel Time to Work



date. The change from last year is small (it slowed from 29.8 in 2000 to 29.5 in 2001), but it does support a trend toward slower travel speeds.

County Comparisons

The Bay Area's less urbanized counties provide commuters with the fastest travel speeds (Table 6); Napa, Solano and Sonoma all average 35

miles per hour or greater.

Commuters who live in Santa Clara and San Francisco have the slowest travel speeds. The trend across most counties is one of slower average speeds. Eight of nine counties experienced decreases in average travel speed ranging from two to ten miles per hour.

TABLE 6

Average Travel Speed by County

County	1996	1999	2000	2001	Change 1996-2001
<i>Miles Per Hour</i>					
Napa	43	45	38	39	-4
Solano	44	48	37	37	-7
Sonoma	43	41	35	35	-8
Contra Costa	35	39	32	33	-2
San Mateo	37	34	31	30	-7
Alameda	35	34	30	28	-7
Marin	31	33	27	28	-3
Santa Clara	36	33	29	26	-10
San Francisco	21	25	20	24	+3

Carpool Lane Use

No significant carpool lanes were added to the Bay Area in the last year and this is reflected in the data. Forty percent (40%) of respondents indicated there was a carpool lane along their route to work—identical to the response to Commute Profile 2000. Marin (65%) and Santa Clara (51%) commuters were the most likely to indicate that there was a carpool lane along their route to work; Napa (13%) and Sonoma (19%) commuters were the least likely to acknowledge a carpool lane along their commute route. Of those who have a carpool lane along their route and commute by an HOV mode (just over 5% of respondents), approximately six of

ten regularly use the lane. Again this is almost identical to last year.

Eighty percent (80%) of carpool lane users indicated that it saves them time in getting to work. This is similar to the last two years where 85% to 88% of users indicated that it saves them time. The amount of time saved has been increasing steadily (Figure 7). As travel speeds in the non-carpool lanes decrease, the relative time savings in carpool lanes appears to be increasing.

To better understand how carpool lanes influence mode choice, two questions were added to the Commute Profile survey starting in





1999. Respondents who were currently using a high occupancy vehicle (HOV) mode, were asked if the carpool lane influenced their decision to carpool, vanpool or use transit. Sixty-nine percent (69%) indicated that it had indeed influenced their decision. A follow-up question was then asked: Would you continue to carpool, vanpool or ride transit if the carpool lane did not exist? Only 8% of respondents to this question said that they would continue to use an HOV

mode if the carpool lane did not exist (Figure 8). This is almost identical to 1999 when 9% indicated they would continue to carpool without the diamond lanes. It is clear from this data that the carpool lanes play an important role in motivating commuters to use HOV modes. The "no" response over the last three years has been stable with approximately six of ten respondents indicating that they would not continue to use an HOV mode without the carpool lane.

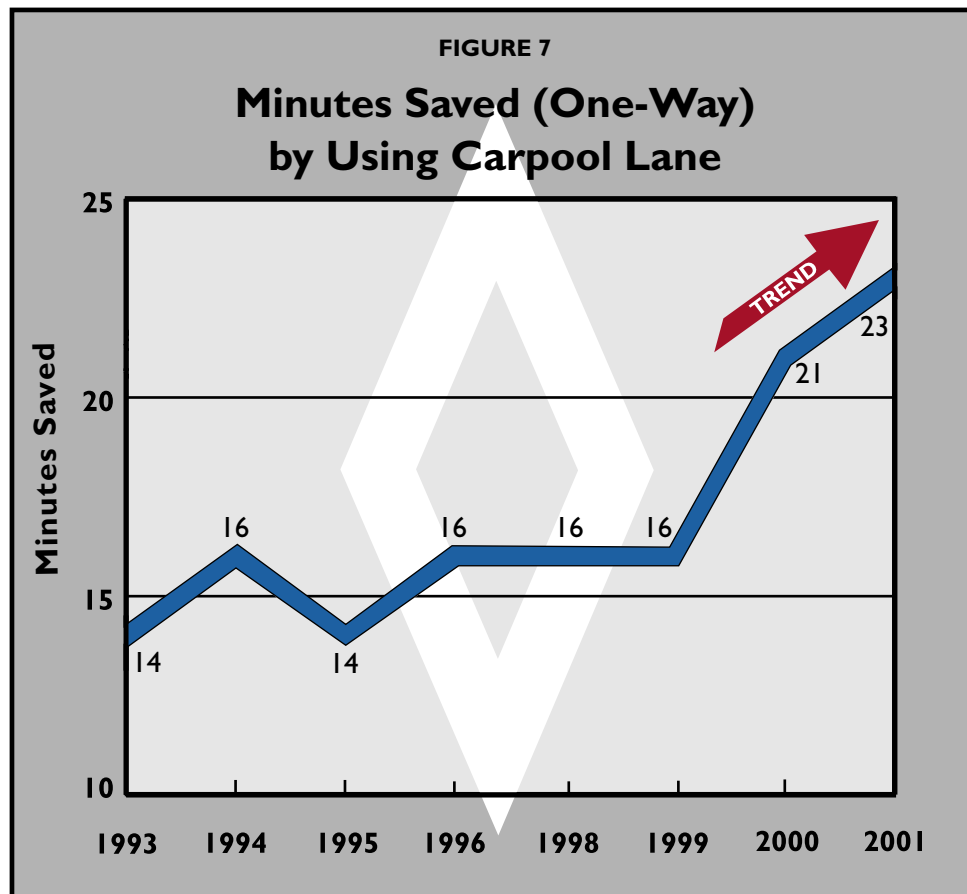
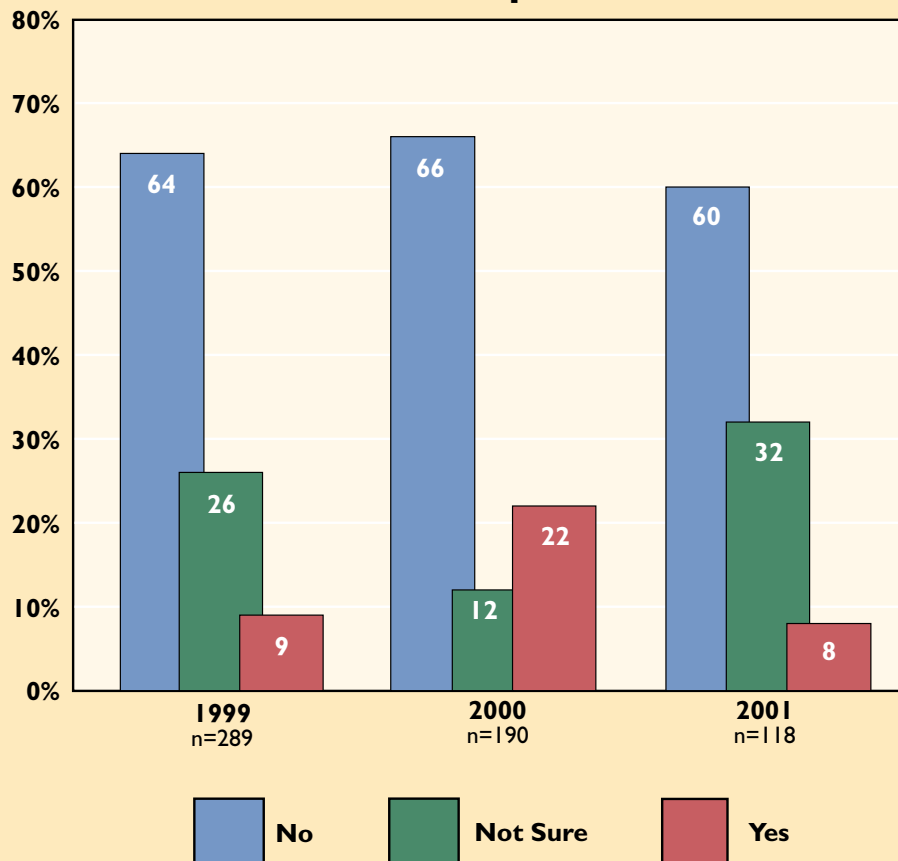


FIGURE 8

Continued Use of HOV Mode Without Carpool Lane?



Telecommuting

Telecommuting is an option for 22% of commuters (i.e., it is an opportunity provided by respondents' employers). This is identical to last year.

Approximately 80% of respondents who have the option to telecommute take advantage of it. Of those who telecommute:

- 18% do so one day per month,
- 51% do so two to four days per month,
- 30% do so five or more days per month.

The average telecommuter does so just over four days per month. This is down a bit from previous years

where the average was between five and six days per month. In the earlier section on commute mode, it was noted that the percentage of respondents indicating that their primary commute mode was telecommuting had dropped (from 1.1% in 2000 to 0.2% in 2001). This decrease in "full time" telecommuters responding to this year's survey may account for the lower average.

Since one goal of telecommuting is to reduce vehicle trips, respondents were asked if they made more, the same or fewer trips on days when

they telecommute compared with days when they commuted to work. Table 7 shows an increase in the number of respondents making more trips, but the majority of telecommuters use the opportunity to reduce the number of trips they make.

TABLE 7
Trips Made on Telecommuting Days

	1998	1999	2000	2001
Fewer	60%	67%	74%	57%
Same	35%	24%	20%	31%
More	5%	9%	7%	13%
n=	159	674	645	571

MODE CHOICE

This section looks at why commuters choose specific modes, changing commute conditions, the ease of using specific modes, parking and employer incentives.

Why Commuters Choose Specific Modes

Essential to understanding commuter behavior is an understanding of why commuters choose specific modes. When asked in an open-ended format why they use their normal mode, respondents cited a variety of reasons ranging from "no other way to get to work" to just "habit" (Table 8). No one reason dominates commuters' motivation. Travel time, work schedules, costs, the need for a vehicle and comfort were the more common responses.

These reasons are similar to those cited in previous years. However, in past surveys "convenience and flexibility" was an option for respondents to indicate. Since the general nature of this response did little to advance an understanding of commute behavior, it was eliminated this year and interviewers were asked to probe further if convenience and flexibility was a respondent's initial response. The other common response that is relatively general in nature is "no other way to get to work." Respondents who indicated that they chose their

mode because they had no other option were asked a follow-up question to further define their response (Table 9).

In most cases, respondents using different modes cite similar reasons for choosing how they get to work. However, there were some notable variations:



Drive-alone commuters, because they are by far the largest subgroup, will have characteristics

very similar to all respondents. They were somewhat more likely to tell us that they had "no other way to get to work." Given the very high levels of vehicle ownership (95% of respondents have a vehicle available for commuting), driving is clearly the most available option. Drive-alone respondents were also more likely to indicate that their travel behavior was influenced by their work hours or work schedule.



Carpoolers, like transit riders, are motivated by reducing commuting

costs—although not to the same extent. Transporting children is a key factor in the decision of carpoolers to use that mode, as well as being able to use carpool lanes/decrease travel time.






Unlike drive-alone commuters, the single most influential factor for transit riders is commuting costs. The desire to have a comfortable or relaxing commute, the cost or availability of parking and a less stressful

commute were also more likely to influence transit riders than the population as a whole.

OTHER "Other" mode users are more motivated by reduced travel time than drive-alone,

TABLE 8

Mode Choice Factors

Reason for Mode Choice	All Modes				OTHER
No other way to get to work	16%	18%	13%	12%	7%
Travel time to work	13%	12%	14%	13%	19%
Work hours/work schedule	12%	16%	7%	2%	1%
Commuting costs	9%	5%	13%	22%	11%
Need vehicle during work	9%	11%	6%		
Comfort/relaxation	9%	8%	8%	15%	14%
Need vehicle before/after work	4%	5%	6%		
Need vehicle to transport kids	4%	1%	15%		
Privacy	2%	2%			1%
Not being dependent on others	2%	3%	1%		
Come and go as I please	1%	2%	1%		
Like to drive	1%	2%	1%		
Parking availability/cost	1%		1%	10%	4%
To use carpool lanes	1%		2%		
Enjoy company	1%		2%	1%	4%
Environment	1%		1%	1%	4%
Stress	1%		1%	4%	1%
Habit	1%	1%			1%
Other ⁷	13%	13%	10%	21%	33%
n=	3,580	2,484	623	344	129

⁷ Other includes: no one to carpool with, live close to work, safety, ability to get home in emergency and employer/other incentives.

carpool and transit commuters. Comfort and relaxation and a concern for the environment also tend to characterize "other" mode commuters more than users of different modes.




In addition to some reasons being more common to subgroups of commuters, each subgroup also has somewhat unique demographic characteristics. Drive-alone commuters tend to be a little older and have slightly higher incomes. Transit riders tend to be a little younger. Carpoolers are somewhat more likely to be female, younger and have slightly lower incomes. From a demographic perspective, "other" mode

users tend to be younger and are slightly more likely to be male.

Respondents who indicated that they use their current mode because they have no other way to get to work were asked to further explain what this meant to them (Table 9).

Respondents who drive alone were referring primarily to the lack of practical transit options. The feeling that driving is easier and faster than other modes and the lack of carpool partners also characterized the meaning of "no other way to get to work" for drive-alone commuters. For those who were carpooling, the lack of practical transit options and ease of driving characterized their

TABLE 9
"No Other Way to Get to Work"

Explanation of "No Other Way to Get to Work"	All Modes			
No practical transit options	40%	46%	31%	
Driving is easier and faster	18%	17%	31%	
No one to carpool with	13%	16%		7%
Irregular work schedule	8%	8%	13%	
Don't own a car	7%		4%	83%
Too far from transit	6%	6%	9%	
Never considered options	4%	5%	4%	
Need car to make other trips	3%	2%	7%	
No parking at work	1%		2%	10%
n=	674	510	132	50

response. Transit users who cited "no other way to get to work" were primarily saying they did not own a car and were, therefore, dependent on transit.

Changing Commute Conditions

Bay Area commuters who believe their commute has improved in the last year are in the minority. Most respondents indicated their commute conditions were about the same or worse than they were a year ago (Figure 9). The response for 2001 is almost identical to the response to this question in 2000.

One of the top two reasons for improved commute conditions was a change in home or job location rather than an actual improvement along a commute route (Table 10). Lighter traffic was cited by a comparable number of respondents—indicating that some commuters are experiencing improvements. The percentage of respondents indicating that traffic had gotten lighter was also up from last year when only 16% mentioned it.

For those whose commute has gotten worse, heavier traffic was the clear consensus. This was slightly less

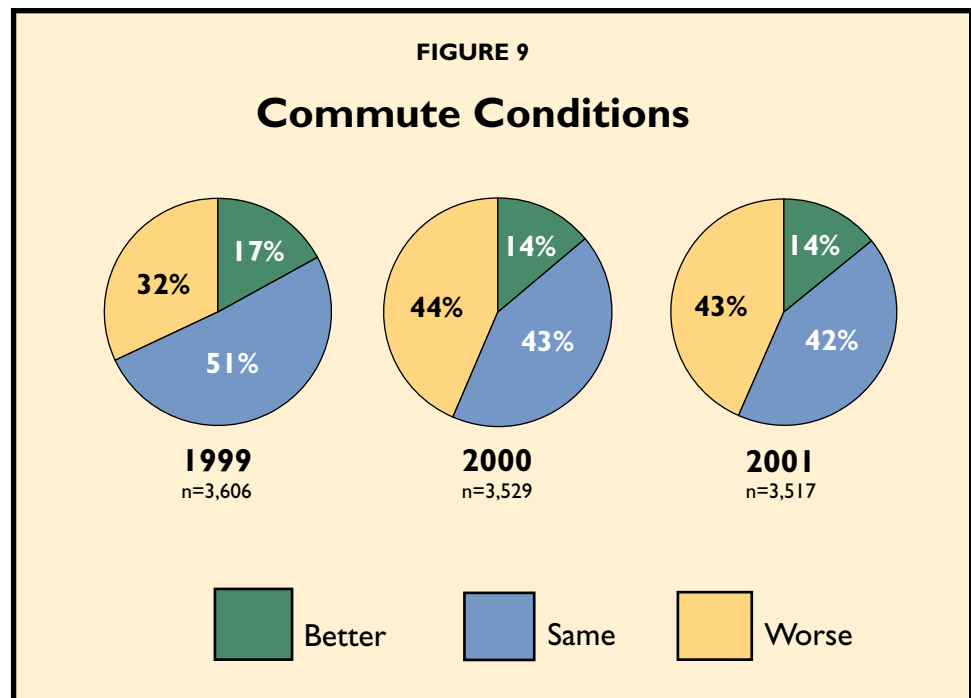


TABLE 10 How Commute Has Gotten Better or Worse			
Better		Worse	
Moved home/job location	27%	Traffic heavier	72%
Traffic lighter	26%	Construction delays	9%
Changed route	11%	Transit slower/crowded	5%
Roadway improvements	7%	Moved home/job location	3%
Changed mode	7%	Road work	2%
Travel at different time	7%	Changed route	1%
Better transit service	5%	Travel at different time	1%
Less road work	2%	Changed mode	1%
Other	7%	Other	5%
n=	491		1,517

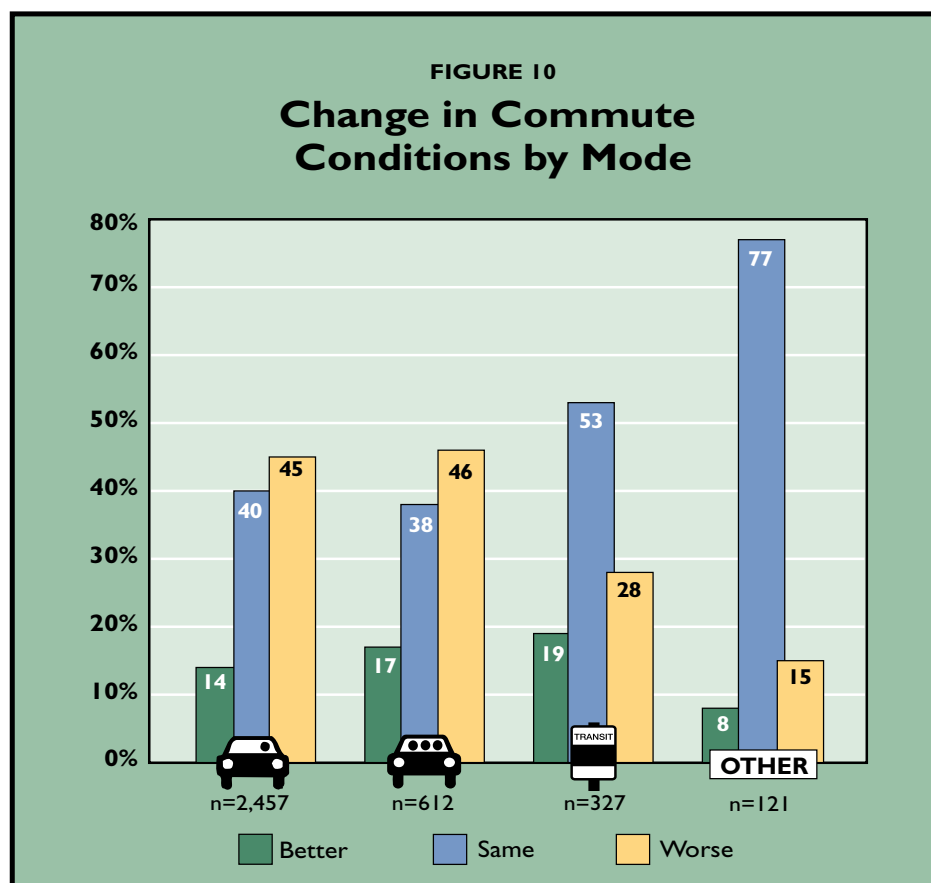
than last year when about 74% of respondents indicated that traffic was heavier. It is, however, substantially higher than two years ago when 58% cited heavier traffic.

Changing commute conditions are examined by mode in Figure 10. Transit and carpool users were the most likely to indicate that conditions were better than a year ago. Carpoolers and drive-alone commuters were most likely to indicate that conditions had gotten worse. Since not all carpools have the opportunity to use the carpool lane, this may explain the relatively high

percentage indicating their commute had gotten better and the relatively high percentage indicating it was worse. Almost 90% of carpools who use the carpool lane indicated that their commute had improved. "Other" mode users, who are perhaps less vulnerable to increased traffic, were the most likely to indicate that their commute conditions were the same now as they were a year ago.

County Comparisons

Commuters who live in Marin, San Francisco and Santa Clara were most likely to report improved commute



conditions (Table 11). Commuters who live in Sonoma and Napa were the least likely to report improved conditions. Commuters who live in Contra Costa were most likely to report that conditions had gotten worse for them over the last year and San Francisco commuters were the least likely to report worse conditions. San Francisco commuters were also the most likely to report conditions being about the same (likely related to the higher use of transit and "other" modes).

TABLE 11
Change in Commute Conditions by County

County	Better	Worse	Same
Alameda	15%	44%	41%
Contra Costa	12%	52%	36%
Marin	17%	40%	43%
Napa	10%	42%	48%
San Francisco	17%	27%	56%
San Mateo	13%	44%	43%
Santa Clara	17%	44%	39%
Solano	15%	49%	37%
Sonoma	9%	49%	42%

Ease of Using Specific Modes

New to Commute Profile this year is a series of questions that asks respondents if it is easier, about the same or more difficult to use transit, to carpool or bicycle to work now than it was a year ago. The results are summarized in Figure 11. Only individuals who were currently using transit, carpooling or bicycling to work were asked these questions. Transit riders and carpoolers had a similar response with slightly more indicating it had gotten easier than those indicating it had gotten more difficult. Bicycle riders saw less

change in their commute trip with almost 80% indicating it had stayed pretty much the same as a year ago.

Questions on whether individual modes were easier or more difficult to use were followed with questions as to why. The most frequently cited reasons are shown in Figure 12. Service reliability and frequency dominated the transit responses. The availability of partners and increasing traffic dominated the carpoolers responses. New bike lanes and traffic were cited by bicyclists.

FIGURE 11
Ease of Using Transit, Carpooling and Bicycling for Work Trip

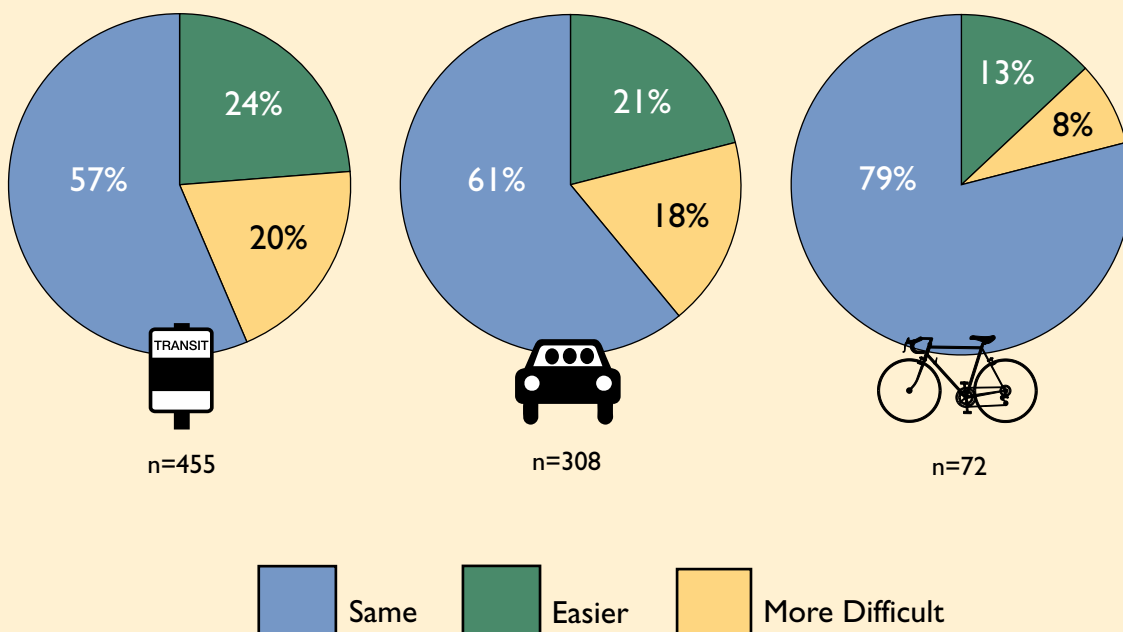





FIGURE 12

How Using Transit Has Gotten...		
	EASIER	<ul style="list-style-type: none"> • Service reliability or frequency has improved • New service has been added • Better information available n=108
	MORE DIFFICULT	<ul style="list-style-type: none"> • Service is less reliable • Service is less frequent n=93
How Carpooling Has Gotten...		
	EASIER	<ul style="list-style-type: none"> • More people to share rides with • New carpool lane n=63
	MORE DIFFICULT	<ul style="list-style-type: none"> • Traffic is worse • Partners no longer available • Change in home/work schedule n=55
How Bicycling Has Gotten...		
	EASIER	<ul style="list-style-type: none"> • New bike lane n=6
	MORE DIFFICULT	<ul style="list-style-type: none"> • Traffic is worse n=6

Parking and Employer Incentives

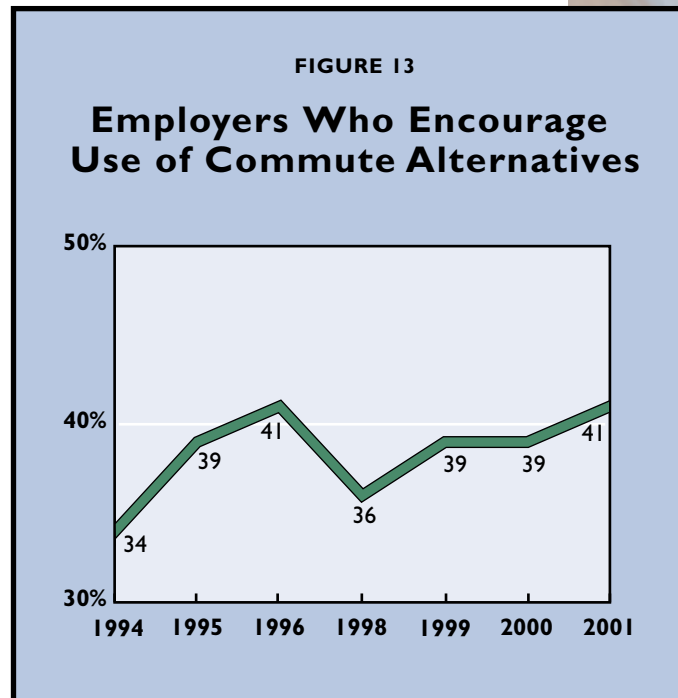
Most respondents to Commute Profile 2001 (78%) have free all-day parking available at or near their worksite—almost identical to previous years. As described in earlier editions of Commute Profile, the influence on mode choice of destinations with and without free parking is substantial.⁸ Locations with free parking have a drive-alone rate of 76%, while those without free parking

have a drive-alone rate of 48%. While the difference is large, results from past years have shown even larger differences between respondents who commute to areas with free parking versus those who commute to areas where one must pay to park. The difference in transit use is even greater. For those with free parking, the transit use rate is 4%; for those without, it jumps to 30%. The use of biking and walking more than doubles in areas without free parking.

⁸Although parking is the variable identified here, other conditions associated with parking are likely to have an influence on mode choice. In other words, paid parking may not be the causative variable itself—it may simply identify areas with specific characteristics. For example, in areas such as downtown San Francisco where free parking is scarce, there is also more transit service, more amenities within walking distance of offices and significant local congestion.

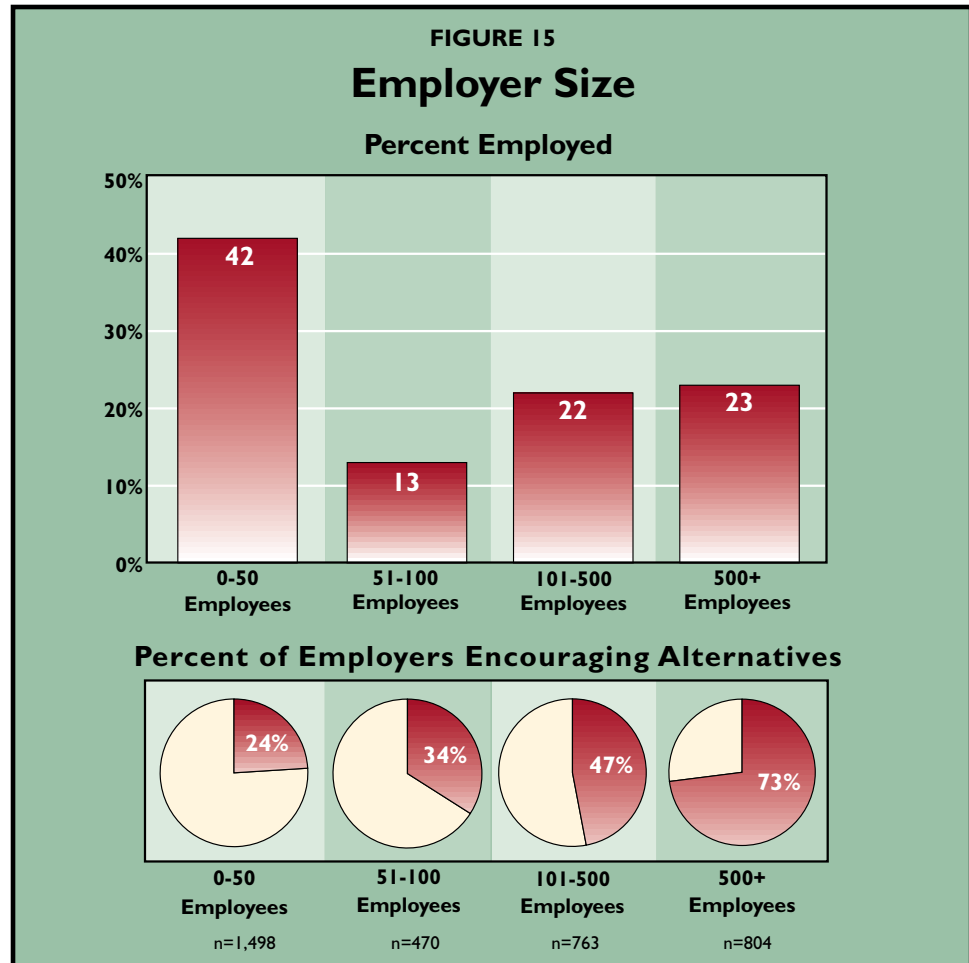
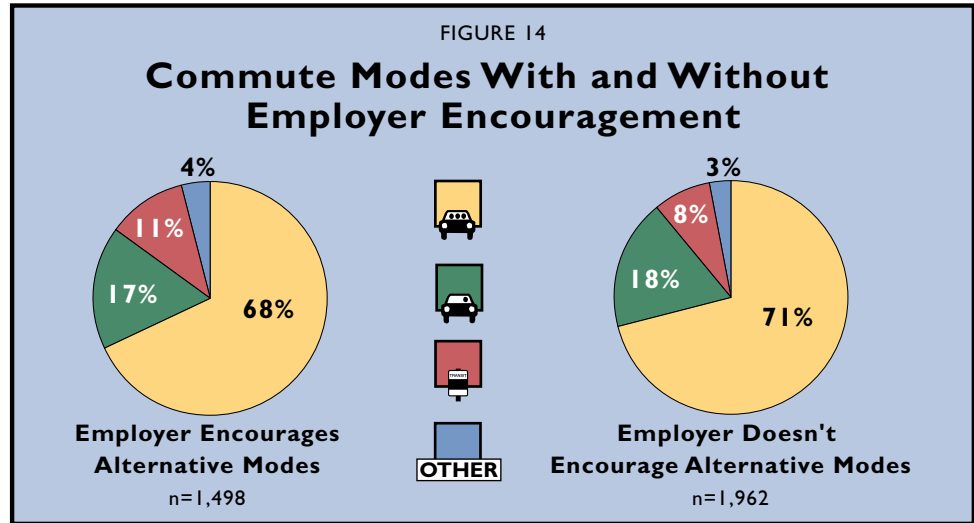
Carpooling rates, on the other hand, are slightly higher in areas with free parking—18% versus 16% for those without free all-day parking. The numbers this year again demonstrate that commuters will trade their car for the bus or train given the right combination of incentives (e.g., frequent service) and disincentives (e.g., paid parking).

The percentage of employers who encourage employees to use transit, carpool, bicycle and walk to work remained at a fairly high level in 2001 (Figure 13). Commute Profile data provide only a rough estimate of employer involvement. This is a rough measure because it is based on respondents' awareness and understanding of whether their employer does so, and on data that does not necessarily include a representative sample of all Bay Area employers. As imperfect as the data are, they do indicate that employers remain involved in providing commute assistance to their employees. The drive-alone rate is about 3% lower at employer sites where the use of alternatives is encouraged (Figure 14). The difference is less than last year when the drive-alone rate was almost 8% lower at employer sites where the use of alternatives is



encouraged, but more in-line with earlier years where the difference was just below 3%.

The largest percentage of respondents worked at companies with 50 or fewer employees; over half (55%) of respondents work for employers with 100 or fewer employees (Figure 15). The likelihood that an employer will operate a program that encourages employees to use alternatives to driving alone increases with employer size. Less than a quarter of companies with 50 or fewer employees operate a commute incentive program while almost three-quarters of large companies (more than 500) operate such programs.



ASSESSING MARKET DEMAND

This section discusses the use of commute alternatives, characteristics of commuters more likely to use alternative modes and impediments to the use of commute alternatives.

Likelihood of Commute Alternative Use

Respondents who were not currently carpooling, riding transit or bicycling to work were asked how possible it would be for them to do so at least one or two days a week. For most commuters, carpooling, using transit and bicycling, even one or two days a week, are not seen as possibilities (Figure 16). The fact that most commuters feel these alternatives are not a practical option supports a strategy of targeted marketing aimed at individuals with a higher potential to try a new commute mode.

Carpooling was the most popular of the proposed alternatives with just under a quarter of respondents indicating it is "very" to "somewhat possible" for them to carpool one or two days a week. For the third year in a row the percentage of respondents indicating that transit is "very" to "somewhat possible" has increased. In 1999, it was 13%; in 2000 it went up to 18% and now the "very" to "somewhat possible" category is up to 22%. This is a positive sign that transit service or commuters' knowledge of transit serv-

ice is improving. As a follow-up, respondents were asked which transit agency they would be most likely to use. BART was the transit agency that the most respondents indicated they would use (Table 12). The percentage of respondents indicating that bicycling is "very" to "somewhat possible" also went up considerably from last year. In 2000, 13% of respondents felt it was a strong possibility and this year it is up to 20%.

Characteristics of Commuters Who Are More Likely to Use an Alternative

Are there identifiable characteristics of commuters more likely to use a commute alternative that could be used to design a targeted marketing strategy? An examination of five variables was completed to look for patterns. Those variables were:

- commute trip distance,
- recent changes in commute conditions,
- access to a carpool lane along their commute,
- county of origin, and
- demographics.

No differences were noted for respondents with access to carpool lanes or for those whose commute conditions had changed.



FIGURE 16

How Possible Would it be to Use an Alternative Travel Mode

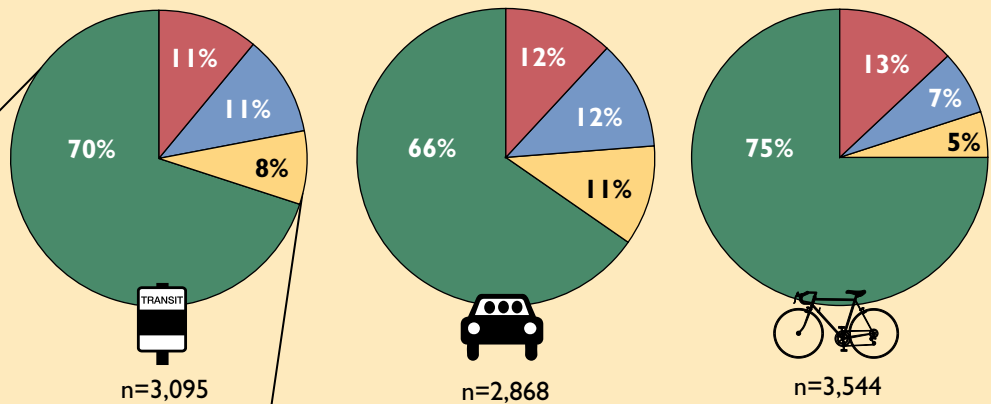


TABLE 12

Transit Agency Most Likely To Use

BART	30%
Other Local Service	20%
Caltrain	12%
AC Transit	10%
Santa Clara (VTA)	9%
Muni	7%
Golden Gate	6%
SamTrans	4%
County Connection	2%
n=	2,440



Commuters who travel a moderate distance to work (6-10 miles one way) were the most likely to see carpooling as a higher potential option and commuters who travel short distances (less than six miles one way) were the least likely to view carpooling as an option. Short-distance commuters, however, are the most likely to consider transit a realistic option. This short-distance group is an important one because it includes almost 30% of all commuters. Long-distance commuters (over 41 miles one way), on the other hand, are the least likely to consider transit a viable option.

County of origin also seemed to make a difference in commuters' response to the possibility of using a commute alternative. Commuters who begin their commute in Solano County were the most positive about carpooling and commuters who begin their commute in Marin County were the least positive about carpooling. By a substantial margin, San Francisco-based commuters were the most likely to view transit as a possibility; Sonoma residents were the least likely to view transit as a possibility. The possibility of bicycling to work seemed most viable for Napa and San Francisco commuters and least likely

for Contra Costa and Solano commuters.

The demographic information collected in Commute Profile can provide some insights into higher potential customer groups also. Understanding the demographics of these higher potential groups is also helpful in developing a targeted approach to marketing services. Gender, age and income characteristics are summarized in Figure 17.






Commuters who are more likely to carpool in the future tend to be younger. While 47% of all respondents are under 40 years, 58% of the potential carpooler group is under 40 years. Although younger, they tend to have comparable if not slightly higher incomes. The difference is relatively small; 52% of all respondents have a household income above \$65,000 and 55% of the carpool group has an income above \$65,000. These results are identical to last year with potential carpoolers tending to be younger and slightly above average in terms of income.

Potential transit riders, like carpoolers, are more likely to be on the



FIGURE 17

Demographics of Higher Potential Alternative Users

	ALL RESPONDENTS	Higher Potential 	Higher Potential 	Higher Potential 
 Gender	50% / 50%	53% / 47%	50% / 50%	58% / 42%
<40 Under age of 40	47%	59%	56%	52%
 Income of \$65K+	52%	55%	48%	50%

younger end. In terms of income, the transit group has slightly lower incomes than the population as a whole. Forty-eight percent (48%) had household incomes above \$65,000 versus 52% of the survey population as a whole. The results differ from last year where gender appeared to play a role (males were more likely to see transit as an option last year), and higher potential transit riders had incomes that were above average. Younger respondents showed a higher inclination to use transit both years.

Commuters who are more likely to try bicycling tend to be younger and male. While 47% of the survey population is younger than 40, 52% of those more likely to consider bicycling were under 40. In terms of gender, 58% of potential bike commuters are male, while 50% of the survey population is male. The findings are similar to last year although not as exaggerated. In 2000, 59% of the higher potential bicyclists were under 40 and 66% were male.

Commuters who are currently driving alone were asked if they would be willing to take a carpool passenger if it changed their commute time by less than five minutes (Table 13). Once again a high percentage of commuters responded positively to this question. A closer look at the characteristics of the respondents who indicated a willingness to take a passenger, however, showed no differences in terms of gender, age, income, county of origin or travel distance.

TABLE 13 Willingness to Take a Carpool Passenger					
	1996	1998	1999	2000	2001
Yes, would pick up carpooler	52%	48%	47%	48%	51%

Impediments to the Use of Commute Alternatives




In addition to knowing some of the characteristics of the commuters who are most likely to switch to an alternative mode of travel, it is valuable to know the types of obstacles

that keep commuters in their cars by themselves. Respondents were asked to articulate some of the reasons why they find it difficult to use alternative modes.

For potential carpoolers, finding partners and the flexibility needed to accommodate their irregular work hours topped the list of reasons why they find it difficult to carpool (Table 14). For potential transit riders, the additional time required to make the trip and the lack of appropriate service are key deterrents. Work schedules and the need for a vehicle during the day are additional factors that make using transit difficult for some. Most commuters feel it is just too far to ride their bike to work. Even if commuters who travel 10 miles or less to work are selected, "too far to ride" is still the primary concern; the number of respondents giving that reason does, however, drop from 49% to 34%. Safety on the road and the need for a car at work are additional concerns expressed by substantial numbers of respondents.



TABLE 14
Reasons for Not Carpooling, Riding Transit or Bicycling

Reasons For Not Carpooling 		Reasons For Not Using Transit 		Reasons For Not Bicycling 	
Can't find partners	30%	Takes too much time	24%	Too far to ride	49%
Irregular work hours	27%	No service available	18%	Don't feel safe	10%
Need car during work	12%	Irregular work hours	13%	Need car at work or before/after work	9%
Takes too much time	7%	Need car during work	13%	Don't ride or own a bike	9%
Need car before/after work	6%	Transit unreliable	7%	Never considered it	7%
Transport children	5%	Transport children	6%	Takes too much time	7%
Prefer to drive alone	3%	Need car before/after work	5%	Need to get in shape first	3%
Never considered	3%	Never considered it	3%	Can't ride in work clothes	3%
Desire privacy	3%	Desire privacy	2%	No safe place to lock bike	2%
Work overtime	1%	Prefer to drive alone	2%	No place to change/shower	1%
Other	4%	Other	8%		
n=	2,183		2,386		2,754

AWARENESS AND USE OF COMMUTE SERVICES

This section gauges commuters' awareness of the region's information and incentive programs, knowledge of Park and Ride lots and use of the Internet for transportation information.

Information and Incentive Programs

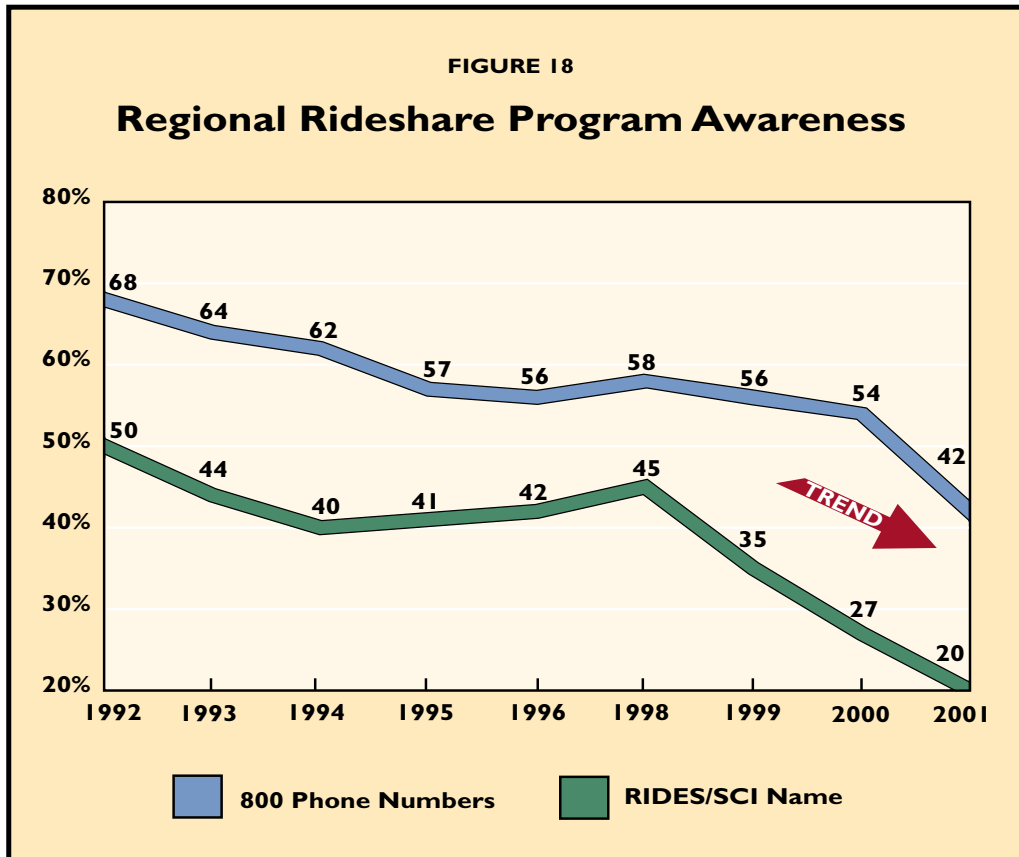
There are a number of information and incentive programs in the Bay Area with the common goal of guiding commuters toward more frequent use of alternatives to driving alone. Commute Profile 2001 includes questions to gauge com-

muters' awareness and understanding of the following services:

- Regional Rideshare Program (RIDES and Solano Commuter Information)
- 817-1717 (the service formerly known as TravInfo®)
- Guaranteed Ride Home Programs
- Public Transit Tax Breaks

Regional Rideshare Program

Awareness of the Regional Rideshare Program, both its phone numbers and names, continues to decline (Figure 18). Respondents were asked if





they had heard of the 800-755-POOL phone number and the 800-53-KMUTE phone number if they lived in Solano or Napa counties. They were also asked if they had heard of an organization called "RIDES for Bay Area Commuters," and Solano and Napa county respondents were asked if they had heard of "Solano Commuter Information" (SCI). Awareness of the 800 phone numbers dropped by 12 percentage points and awareness of the program names dropped by seven percentage points between 2000 and 2001. This was the first big drop in awareness of the phone numbers since 1995; it had fluctuated within a fairly small range up until this year.

County Comparisons

Awareness of the 800-755-POOL number varied little by county (Table 15). San Francisco was a little lower than most of the others and Solano was a little higher. The relatively high level of awareness in Solano is surprising since the 800-53-KMUTE number is commonly used in that area.

Awareness of 800-53-KMUTE number in Solano and Napa was considerably lower than awareness of the 800-755-POOL number in those counties—again this is quite surprising. Respondents who were familiar with

TABLE 15
Awareness of Transportation Services

County	800-155-POOL	800-53-KMUTE	RIDES/SCI
Napa	46%		24%
Solano	48%		24%
Sonoma	47%		23%
Contra Costa	42%	12%	13%
San Mateo	35%		18%
Alameda	41%		20%
Marin	41%		15%
Santa Clara	51%	27%	28%
San Francisco	43%		19%

the 800 numbers were asked to describe the types of services available. Carpool and vanpool information was the most common response mentioned by almost 60% of respondents (Table 16). Thirty-eight percent of respondents were not able to describe the types of services offered.

TABLE 16
Describe Types of Services Offered Through 800 Numbers

Carpool/vanpool information	57%
Don't know	38%
Traffic information	2%
Transit information	2%
Other	1%
n=	1,547

817-1717

The survey instrument included questions to see if respondents were familiar with the region's transit and traffic phone number 817-1717. Seven percent (7%) of respondents were familiar with the phone number, which is similar to awareness measured last year (Table 17). Higher 817-1717 awareness among long-distance freeway commuters was identified in a separate

TABLE 17 Awareness of 817-1717 by Year			
1998	1999	2000	2001
13%	11%	8%	7%

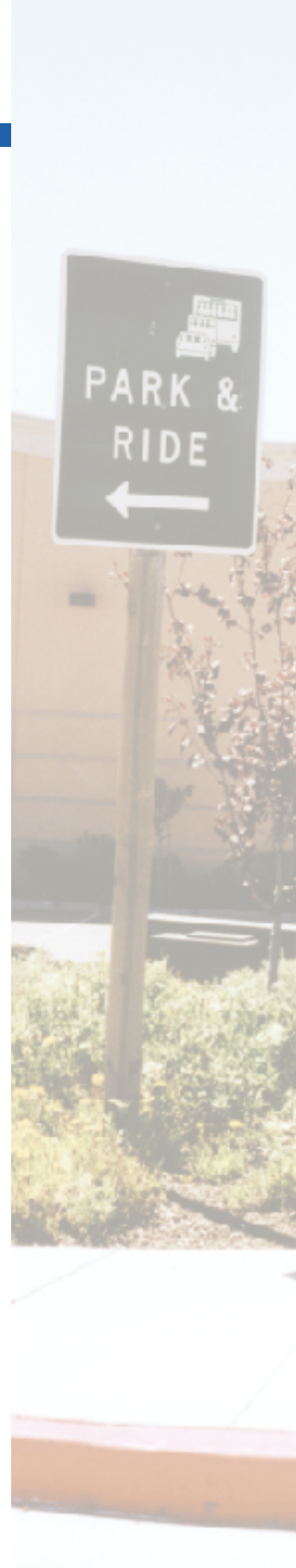
survey, aimed at measuring the effectiveness of a targeted advertising campaign.⁹ Awareness by county was similar to previous years; Alameda County respondents continue to have the highest level of awareness (Table 18). Of those who had heard of the 817-1717 service and could remember where they heard of it, most (61%) had seen it on billboards; another 19% remembered hearing of it from radio or television.

TABLE 18 Awareness of 817-1717 by County	
County	Percent
Alameda	12%
Contra Costa	7%
Marin	4%
Napa	3%
San Francisco	8%
San Mateo	7%
Santa Clara	5%
Solano	5%
Sonoma	4%

Respondents who were familiar with the 817-1717 number were asked to describe the types of services available. Transit or traffic information was the most common response mentioned by 45% of respondents (Table 19). Forty-one percent of respondents were unable to describe the types of services offered. Highway construction information and bicycle program infor-

TABLE 19 Describe Types of Services Offered Through 817-1717	
Transit or traffic information	45%
Don't know	41%
Carpool/vanpool information	12%
Airport ground transportation information	1%
n=	241

⁹MIG, Inc., 817-1717 Third Marketing Survey Results, May 2001, p. 11





mation were on the interviewer's list also but no respondents mentioned these.

Guaranteed Ride Home

Alameda, Contra Costa and Santa Clara counties have Guaranteed Ride Home programs that are available to segments of the population within those counties. The level of awareness varied somewhat between 2000 and 2001 but all within the fairly narrow range of 9% to 14% over two years (Table 20).

TABLE 20

Awareness of County-wide GRH Programs

County	2000	2001
Alameda	14%	11%
Contra Costa	12%	9%
Santa Clara	11%	14%
n=400 per county		

Public Transit Tax Break

Respondents were also asked if they were aware that they could receive a tax break for using public transit. The tax break was a reference to the "commuter choice" legislation that allows individuals to use a limited amount of pre-tax income to purchase transit tickets. Approximately

18% of respondents indicated that they were aware of the tax break. This is up slightly from 2000 when 16% of respondents indicated they were aware of the tax break.

Park and Ride Lots

New to Commute Profile this year is a more detailed series of questions about awareness, use and functionality of Park and Ride lots. More than six of ten respondents are familiar with Park and Ride lots and how they work, and approximately three of ten respondents indicated that there is a Park and Ride lot along their route to work (Table 21). However, only one of ten have ever used a Park and Ride lot.

Those respondents who were currently using a Park and Ride lot or had used one in the past were asked a series of questions about their functionality. Respondents were asked to state whether they "strongly agree," "agree," "disagree" or "strongly disagree" with the statements shown in Figure 19. The results were consistently positive. In general, Park and Ride lots are perceived as convenient, well-maintained and safe places to leave a car by the people that use them. There was not a strong feeling among people who

TABLE 21
Park and Ride Lot Usage

	Yes
Familiar with P&R lots and how they work	63%
P&R lot along your route to work	31%
Ever used P&R lot for your commute ¹⁰	12%

¹⁰45% of respondents had not used a Park and Ride lot within the last year, 35% had used one occasionally in the last year, 11% a few times per week or month and 9% had used one everyday.

have used a park and ride lot at least once that additional information would increase usage of the lots.

Internet Information

Internet access continues to expand. In 1999, seven of ten Bay Area commuters had Internet access. In 2000, that increased to eight of ten, and now nine of ten Bay Area commuters have Internet access either at home or work (Figure 20). Almost half of respondents were aware of transit, carpool and traffic information on the Internet. About 13% of commuters make some use of the Internet and

about 5% use it regularly—once a week or more (Figure 20). Compared with last year, awareness of transit, carpool and traffic information on the Internet is up about 10% but use has shown little change.

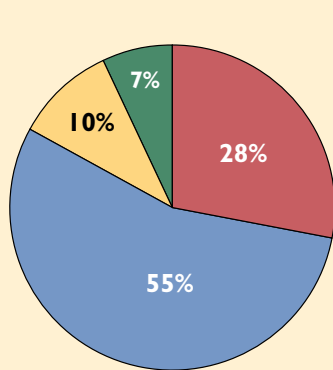
The most wired counties in the Bay Area are Marin and Santa Clara. In Marin, 85% of respondents have access at home and 80% at work. In Santa Clara, 82% of respondents have access at home and 80% at work. Napa is the least connected county with 74% having access at home and 60% at work.

When asked what format individuals would be most likely to use to access information about transit schedules, "via personal computer" was the top choice for about 40% of respondents. Written format was next (27%) and by telephone was the third most popular choice (20%). Kiosk, fax and mobile phone were options that few respondents mentioned.

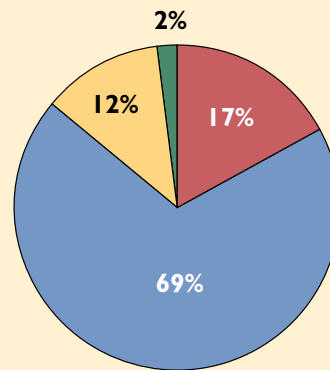


FIGURE 19

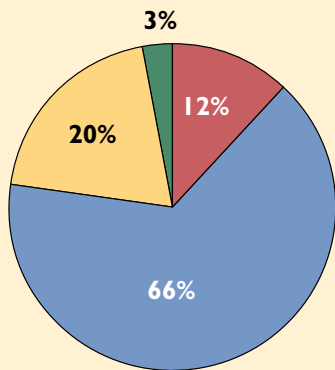
Park and Ride Lot Perceptions



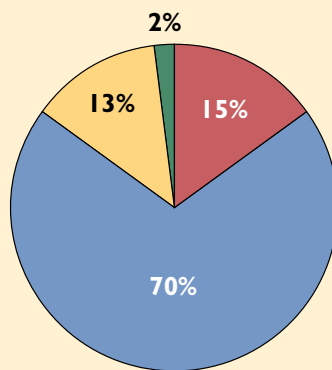
P&R lots are a convenient place for me to meet carpools or transit
n=305



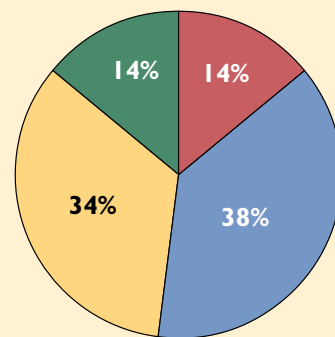
P&R lots are well-maintained facilities (lighting, paving, etc.)
n=295



P&R lots are a safe place to leave a car
n=293



I feel personally safe while waiting at a P&R lot
n=292

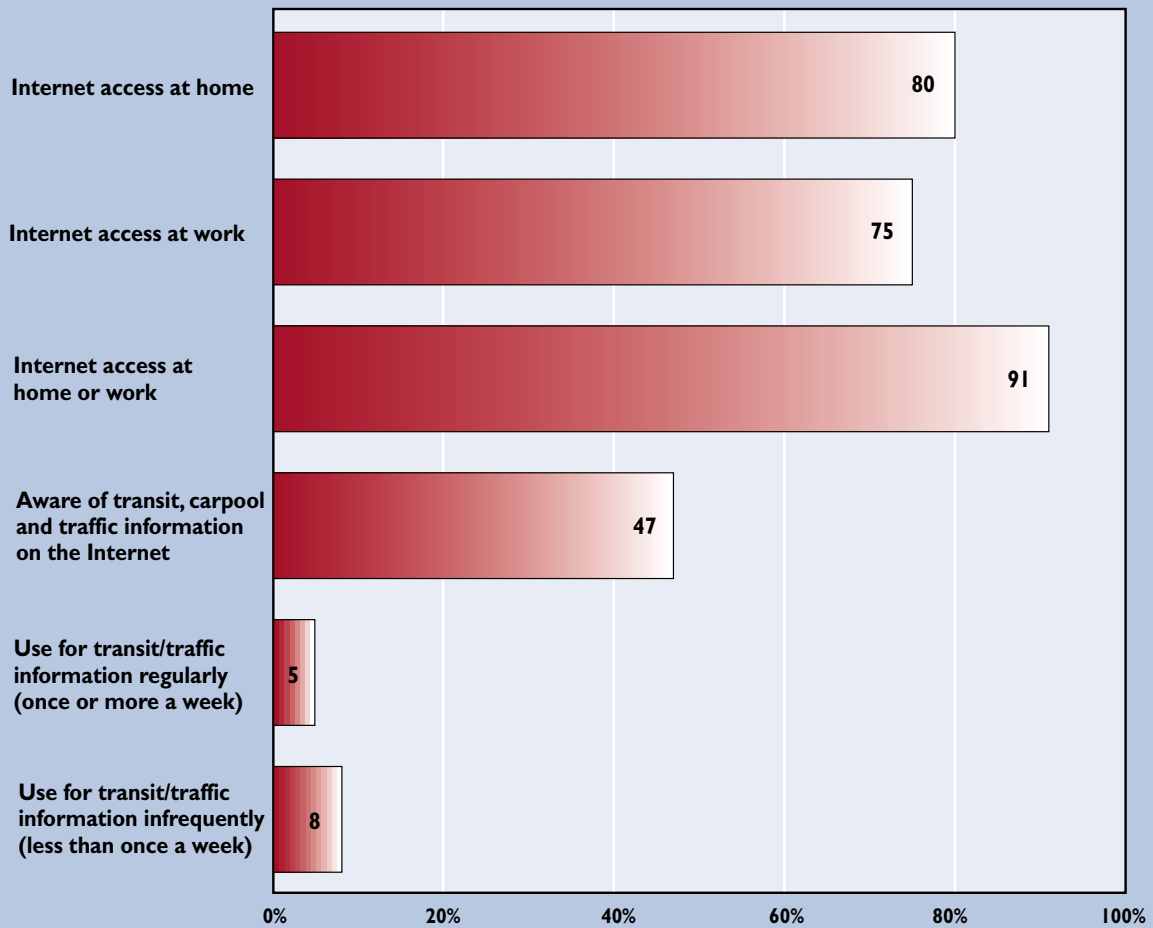


I would be more likely to use a P&R lot if I had more information
n=279

Strongly Agree
 Agree
 Disagree
 Strongly Disagree

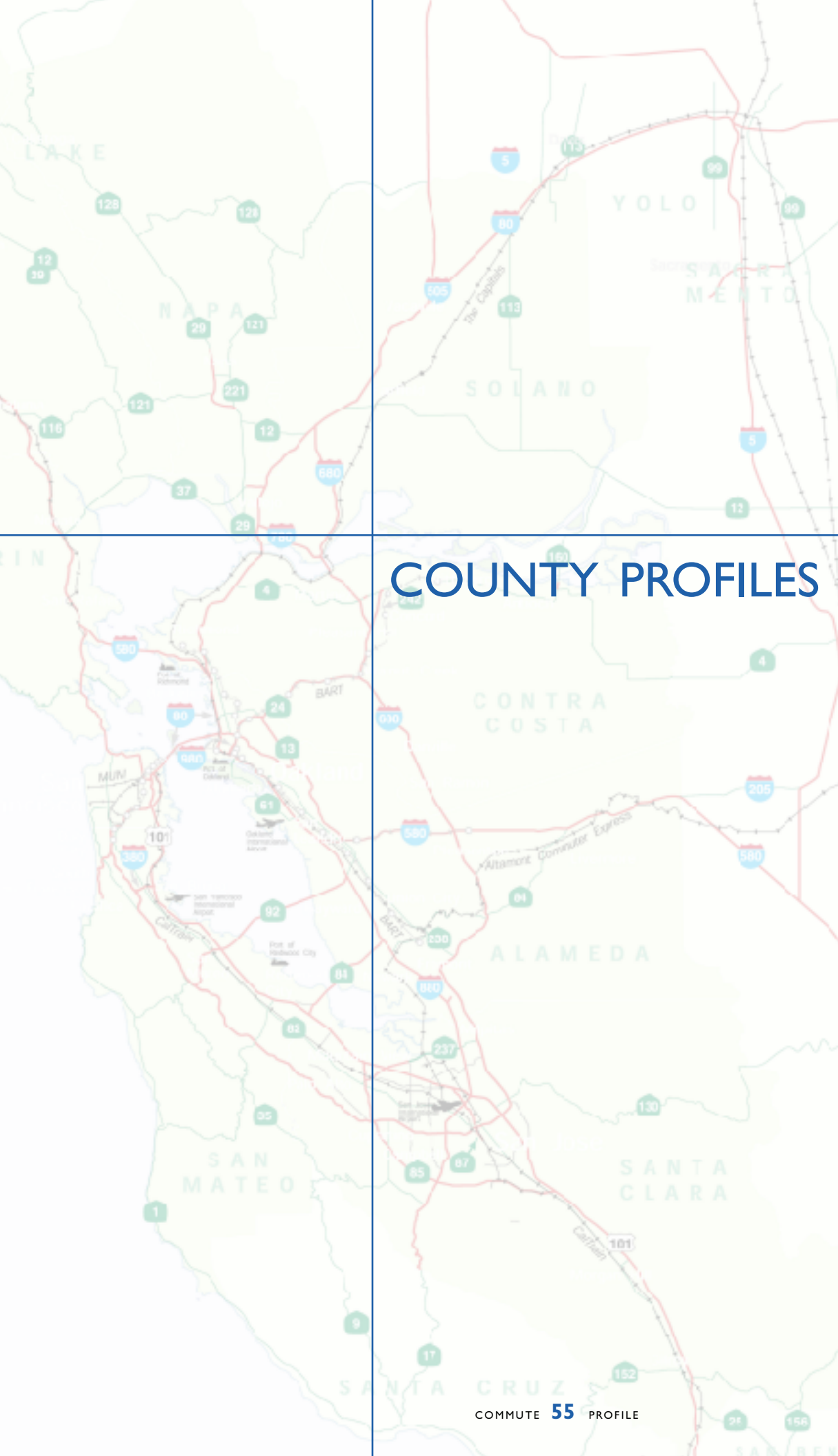
FIGURE 20

Access to and Use of Internet for Travel Decisions



n=3,616

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COUNTY PROFILES

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I N T R O D U C T I O N

The purpose of the County Profiles section of Commute Profile 2001 is to look at each one of the nine Bay Area counties separately in order to identify trends and patterns. Data from each county is compared with data from previous years, the Bay Area region as a whole and other individual counties. As discussed in more detail in the methodology section of the report, each county analysis is based on a sample of 400 residents who are employed full-time outside the home. The data reviewed for each county are:

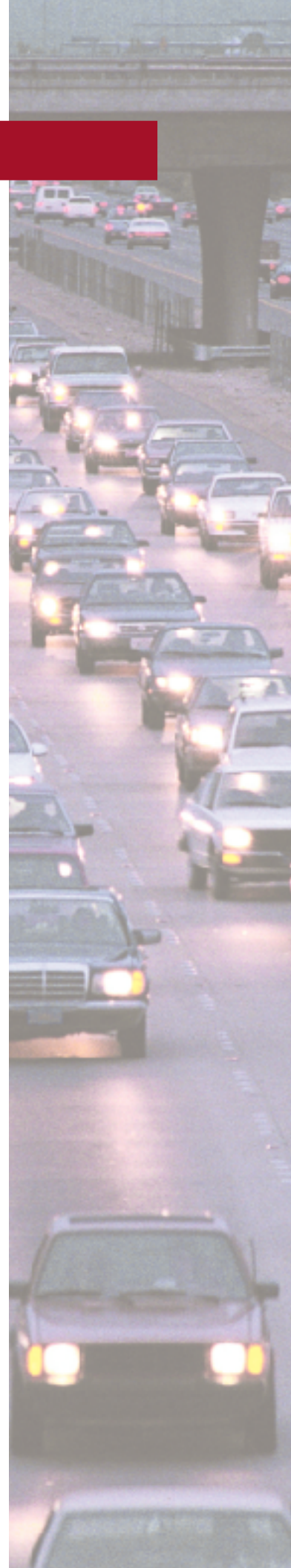
- Primary commute modes
- Connecting modes
- Commute distance and time
- Perceptions of commute conditions and options


The primary mode is the means of travel used for the entire or longest segment of an individual's commute. If respondents used more than one mode on their normal commute trip, they were asked to identify their additional or "connecting" modes of travel. The primary commute mode and clustered¹¹ modes over time give

an overview of the most popular methods of commuting in each individual county. These differences are clearly influenced by factors such as the accessibility of transit, commute distances and the degree of traffic congestion in the county. The connecting mode data provides a more complete picture of all modes commuters use to make their trips to work each day. In general, a higher drive-alone rate in a county means fewer commuters use a connecting mode. Commute distance and time shows the one-way travel distance, length of time and average travel speed of a commute in a particular county. Average travel speed provides an indication of the levels of congestion (based on the assumption that slower speeds are indicative of greater congestion) respondents from specific counties experience.

Respondents' perceptions of commute conditions and options are also included for each one of the nine counties. The purpose of this combination of information is to provide a general sense of how commuters in

¹¹ The clustered modes combine the percentage of carpools and vanpools to make the carpool percentage, all types of public transit together to create the transit use percentage, and all other modes to create the "other" category.







each county perceive their trips to work. It is not an "official" performance measure, but simply a summary of related data collected in Commute Profile. The perceptions of commute conditions and options include data from three separate survey questions. The first question was asked of all commuters, the second of drive-alone commuters and the third of commuters currently using alternatives to driving alone.

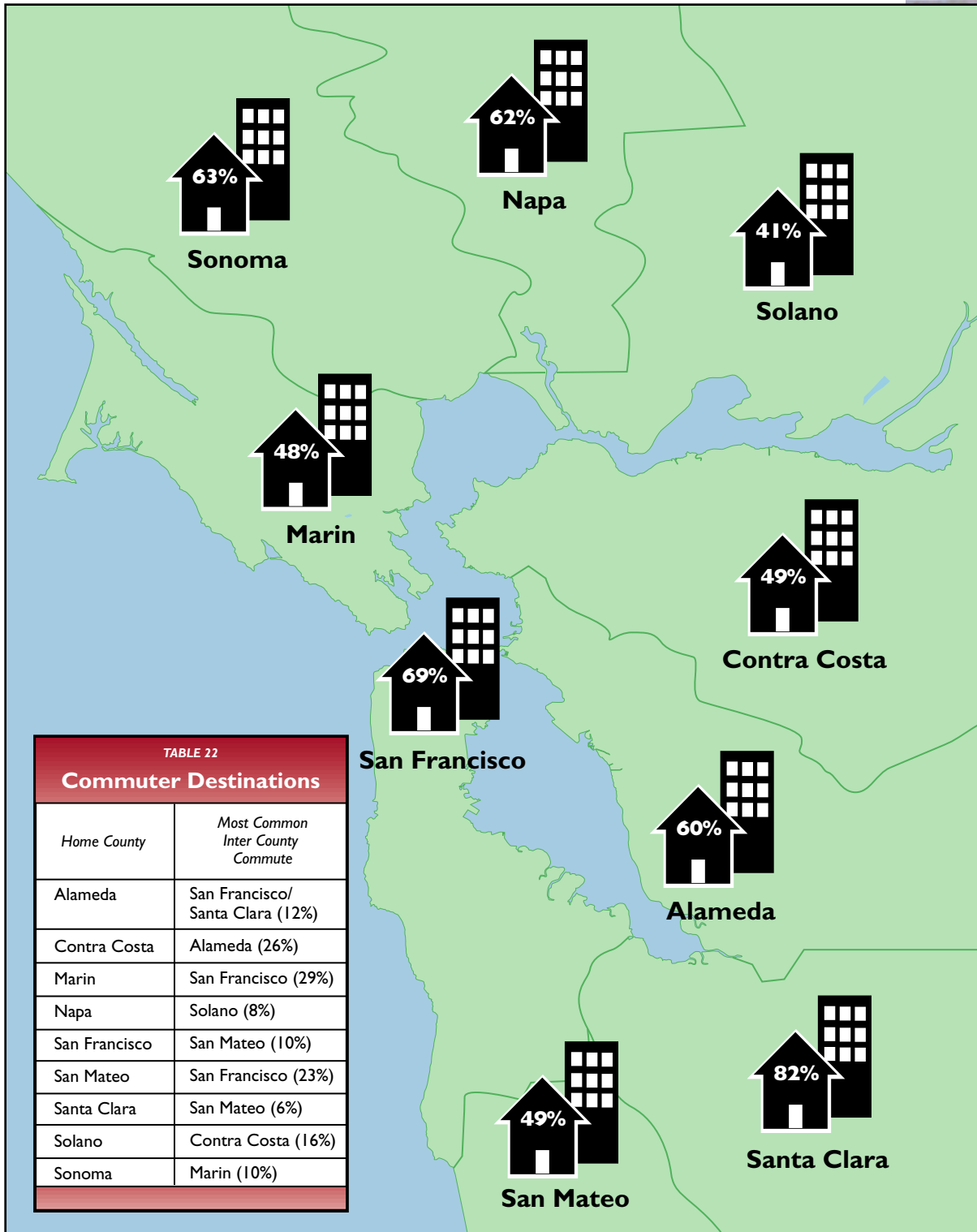
- The first question asked all respondents whether their commute had gotten worse, better or stayed the same during the past year. It is based on their overall perception of how or if their commute has changed.
- The second question asked respondents who reported driving alone as their main commute mode how possible it would be to use a commute alternative. The percentage of those who responded that it would be "somewhat" to "very possible" to use one of the three basic modes (carpool, transit or biking) is included in the table.
- The third question asked respondents who are currently using a com-

mute alternative whether their travel mode has become easier, more difficult, or has stayed the same in the past year. The percentage of commuters who reported that their mode (either transit, carpool or bicycling) has gotten easier is included as a part of the table.

The data in each of the three questions were compared to regional responses, as well as those from Commute Profile 2000. If the percentage of people who had a positive answer to any one of the questions was higher than the regional or Commute Profile 2000 percentage, the county was awarded a positive (+) sign for improvement. If the percentages were lower, the county received a negative (–) sign, and if there was no difference an equal (=) sign was awarded.

A few interesting trends and numbers from the county profile analysis are worth highlighting. Figure 21 shows the percentage of commuters in each county who work within that county, and Table 22 shows the most popular location for residents to work outside of their home county. In all nine

FIGURE 21
Percent of Commuters Who
Live  and Work  in Home County



cases, more commuters work within their home county than any other single outside county. When compared with the ranking of perceptions on commute conditions and options, Santa Clara has the highest positive score and also the highest percentage of commuters who live and work in the same county. San Francisco County is in second place on both cases, and Sonoma and Alameda counties occupy one of the top five spots in both cases. It makes sense that commuters who can stay within county lines would be more likely to be satisfied with their commute options. If they are using transit, it is less likely that they have to make a transfer, and if they are driving alone or carpooling they are most likely going a shorter than average distance in the car.

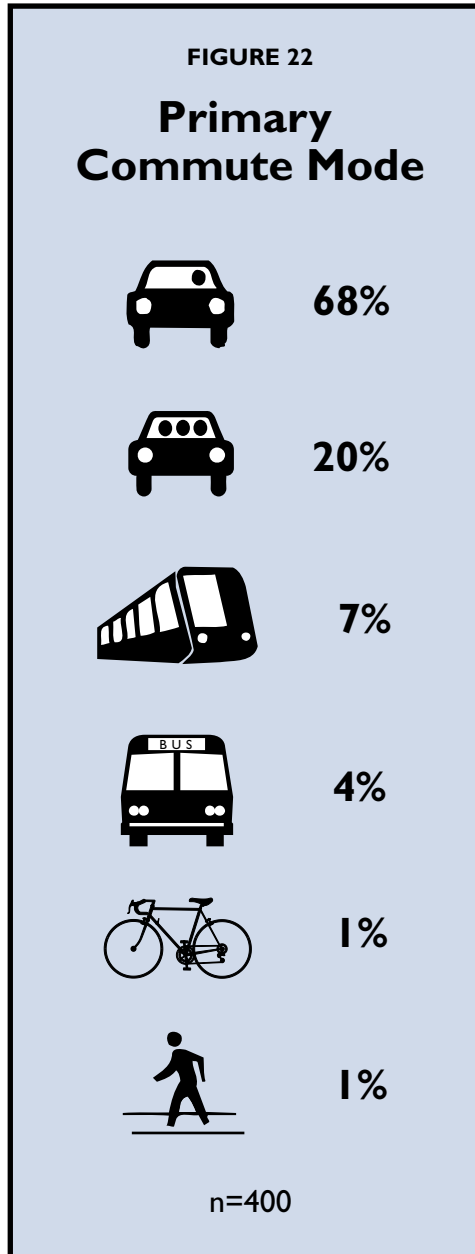
Solano County commuters go the farthest distance each day of any Bay Area residents and also have the highest percentage of people who carpool and vanpool to work. Santa Clara County residents have the shortest distance commutes, but the second slowest average commute speed. Sonoma and Santa Clara counties have the highest drive-alone rates in the Bay Area. San Francisco commuters drive least often and use transit most often out of any of the nine counties. The differences between commuting habits in each county are clearly related to many factors, including availability of transit, traffic congestion, density of the area and average commute distance.

ALAMEDA COUNTY

Alameda County has the second lowest drive-alone rate in the region (Figure 22). San Francisco is the only county with fewer commuters who drive alone to work. The extensive transit options in the county (including BART and AC Transit), combined with many transit-oriented employer locations, create a high percentage of residents with a commute alternative available to them.



Alameda residents are also the second most likely to carpool in the Bay Area (along with residents of Napa County).

Although Alameda County has a low drive-alone rate compared to the region, driving alone has become more popular during the past year (Table 23). 2001 has also seen a 10% decrease in transit use. Commuters who said it is difficult to use transit to get to work cited length of commute time as the number one reason, and not having service along their route as the second most frequent problem. The drop in transit use and increase in driving alone may also be a result of this year's collection of connecting mode data (as discussed in the Regional Profile section of the report under Commute Mode).



Five percent (5%) more respondents in Alameda County use a connecting mode in their daily commute than residents in the rest of the Bay Area (Table 24). People who don't drive alone are much more likely to need a

TABLE 23
Clustered Modes Over Time











	1993	1994	1996	1999	2000	2001
	62%	66%	65%	62%	63%	68%
	14%	16%	15%	16%	14%	20%
	17%	13%	13%	18%	20%	10%
OTHER	7%	6%	7%	4%	4%	3%

connecting mode to make the entire trip. Since there are fewer people who drive alone to work in Alameda County, it is logical that there would also be more people utilizing a connecting mode. The most common connecting mode used is BART (5%), followed by driving alone (4%).

Commute Distance and Time

The average commute time increased from 35 minutes to 37 minutes for Alameda County residents in 2001 (Figure 23). The average distance remained the same, resulting in a decrease in miles per hour from 30 to 28 mph. Compared to the region

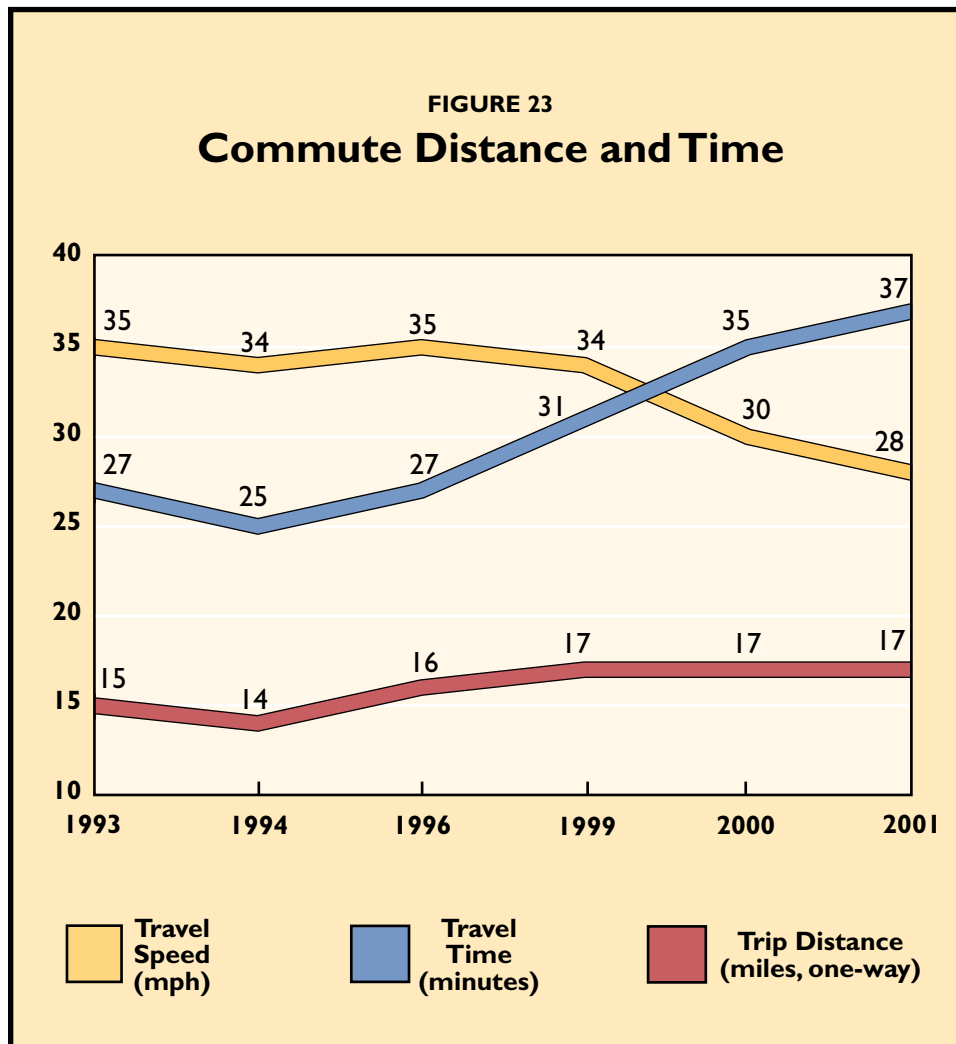
TABLE 24
Top Five Connecting Modes

Alameda County		Region	
	5%		3%
	4%		2%
	2%		2%
	2%		2%
	2%		1%
Total: All Connecting Modes			
16%		11%	

as a whole, the distance commuters travel is about the same, but the average travel time in Alameda County is higher. This is most likely a result of traffic congestion in the area, and fewer drive-alone commuters. In general, people who do not drive alone tend to use slower modes like walking, bicycling or transit.

Perceptions of Commute Conditions and Options

Compared to the region as a whole, Alameda residents have the third best perception of commute conditions and options (Figure 24). The county ranks especially high in the respondents' perception of the ease of using a commute alternative compared with both responses from the region



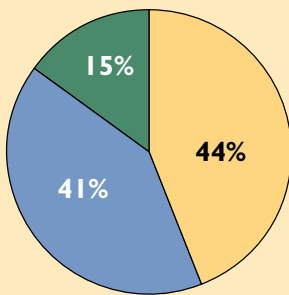
and from last year (Figure 24). Although the average commute time in the county has increased, respondents felt similarly to others in the region about whether their commute had improved or worsened during

the past year. Seventy percent (70%) of the respondents who believed their commute had recently gotten worse stated that it was a result of heavier traffic.

FIGURE 24

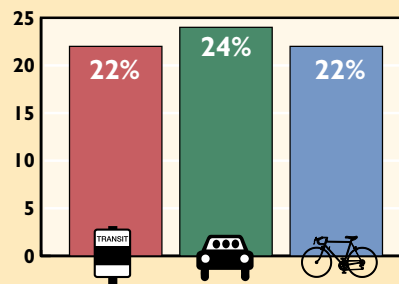
Perceptions of Commute Conditions and Options¹²

Has commute gotten better or worse?



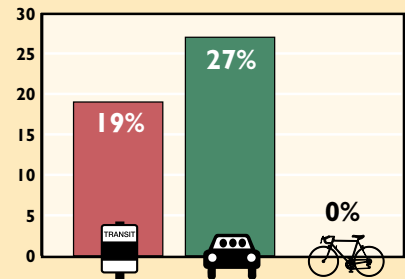
Worse Same Better

How possible would it be to use a commute alternative?



Somewhat to Very Possible

Is it easier or more difficult to use a commute alternative compared with a year ago?



Easier

Compared to region
Compared to one year ago

Compared to region
Compared to one year ago

Compared to region

¹²For a more complete explanation of the information in this figure, please see the Introduction to the County Profiles section.

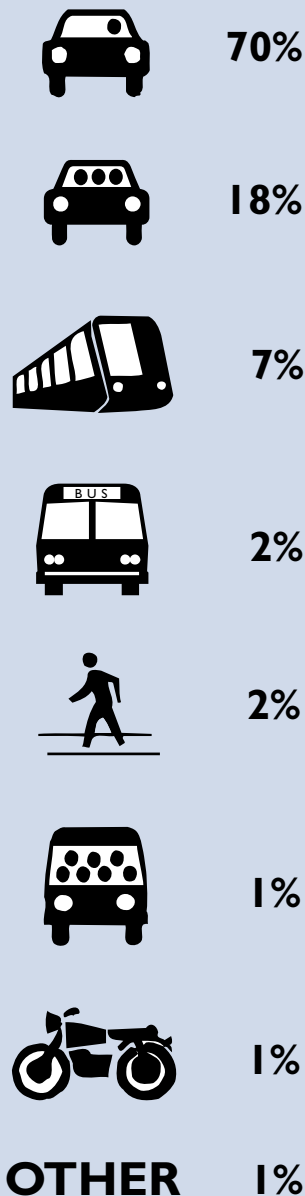
CONTRA COSTA COUNTY

The drive-alone rate in Contra Costa County is one percent higher than the regional percentage, but the county still has the third lowest drive-alone rate in the Bay Area (Figure 25). BART usage is second only to residents of San Francisco County. Carpooling and vanpooling are both above average for the region, and overall transit use is only slightly below average. Carpooling is promoted extensively within Contra Costa and there is an extensive program of incentives designed to encourage the use of commute alternatives.¹³

Between 1994 and 2000, the drive-alone rate in Contra Costa County had been decreasing and the transit rate had been increasing (Table 25). The changes in 2001 in the drive-alone rate and transit rate may be a result of the new designation between the primary mode and the connecting mode (as discussed in the Regional Profile section of the report




¹³ The Contra Costa Commute Alternative Network also conducts annual employer-based surveys that provide additional information on commute patterns in the county from a destination-based perspective.

FIGURE 25
Primary Commute Mode



n=400











TABLE 25
Clustered Modes Over Time

	1993	1994	1996	1999	2000	2001
	64%	69%	67%	66%	66%	70%
	22%	17%	17%	13%	16%	19%
	12%	12%	15%	16%	16%	9%
OTHER	3%	2%	2%	5%	3%	2%

under Commute Mode). Data from future years will be needed to confirm these changes. Contra Costa commuters who indicated that taking transit was difficult most often blamed the amount of time it takes to get to work. The reported use of carpools increased to 19% in 2001.

Compared to residents in the region as a whole, Contra Costa residents are two percent more likely to use a connecting mode on their way to work (Table 26). This may be due partially to the relatively high use of BART by Contra Costa County residents. Respondents who commute by

TABLE 26
Top Five Connecting Modes

Contra Costa County		Region	
	6%		3%
	2%		2%
	2%		2%
	2%		2%
	1%		1%
Total: All Connecting Modes		Total: All Connecting Modes	
13%		11%	

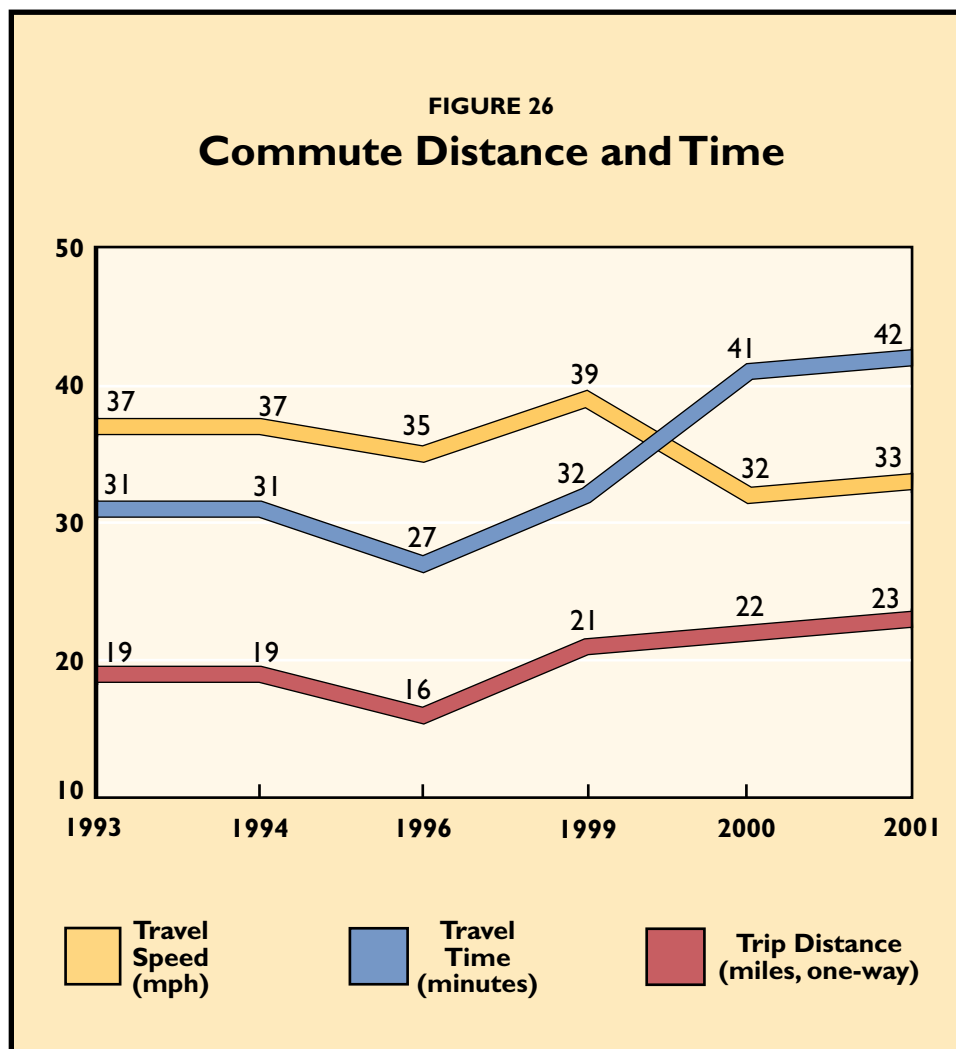
transit are more likely to use a connecting mode (45% of transit riders use a connecting mode compared with 5% of drive-alone commuters).

Commute Distance and Time

Contra Costa residents on average travel about six more miles to work one way, and it takes them about

eight more minutes than the average Bay Area commuter (Figure 26).

However, their average speed is about three miles per hour faster than the average for the region. Contra Costa residents experienced an increase in their commute distance and average speed between 1999 and 2000, but did not see any noticeable change



during this past year. Contra Costa showed the smallest decline (-3 mph) in average travel speed over the past four years among the eight counties where speeds have decreased.

Perceptions of Commute Conditions and Options

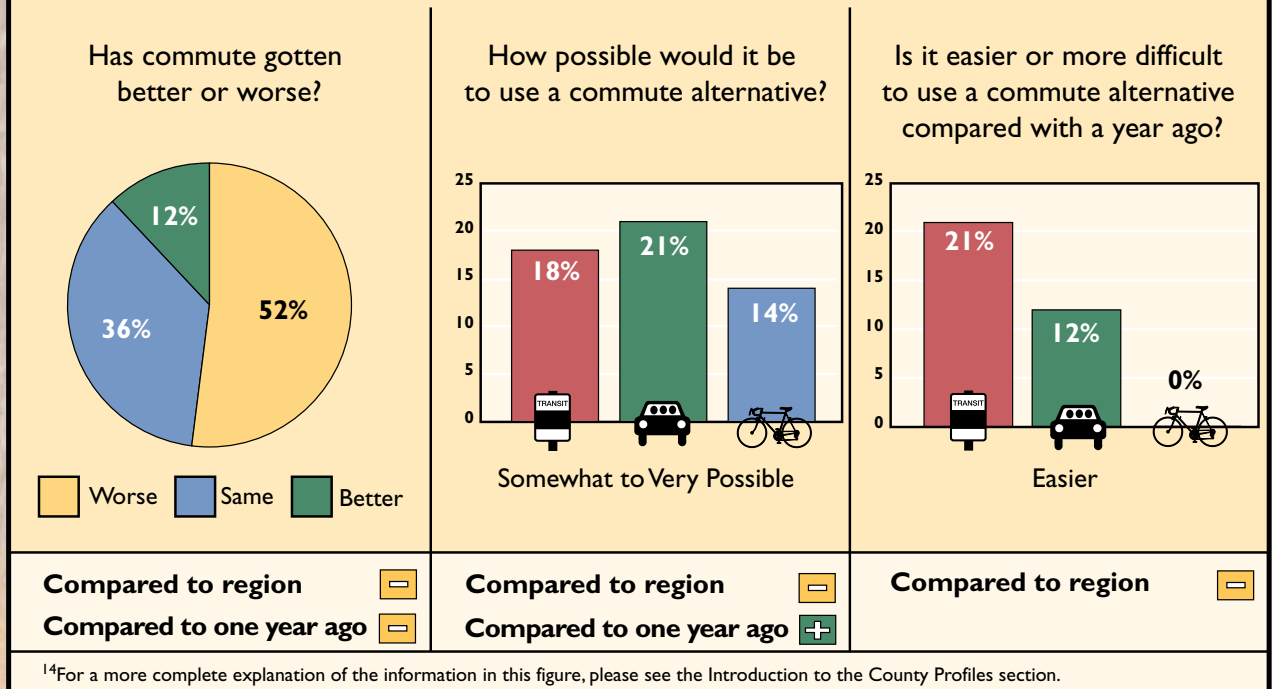
Although average travel speed increased moderately over the last year, most residents believe that their commute has gotten worse over the

same time period, due mostly to heavier traffic (Figure 27). Between 14% and 21% of respondents say it is "somewhat" to "very possible" to use transit, to carpool or to bicycle.

Those who say it is difficult to carpool cite irregular work hours as the main reason. Commuters who find it difficult to use transit most commonly said it took too long, and people who believe it would be difficult to ride a bicycle are most likely to see

FIGURE 27

Perceptions of Commute Conditions and Options¹⁴



their commute distance as a barrier. Compared with the region as a whole, fewer people believe that it is easier to use a commute alternative than it was a year ago. This continues a trend seen in past years, where Contra Costa respondents have indicated that their commute conditions have gotten worse over the last year. In 1999, 34% indicated conditions had gotten worse over the last year; in 2000, 45% indicated conditions had gotten worse over the last year and in 2001, 52% indicated conditions had gotten worse over the last year.

Contra Costa Incentives

Respondents from Contra Costa County were asked if they were aware of commute incentives for people who either work or live in Contra Costa County. Just over 20% of respondents indicated that they had heard of such incentives—the same percentage as the previous year. Those who indicated that they had heard of the incentive programs were asked to describe the types of incentives offered. Carpool, transit and vanpool incentives were all identified by a similar percentage of respondents (Table 27). The guaranteed ride home incentive is only for people who work in Contra Costa County, and the other incentives are for those who both work and live in Contra Costa County.

TABLE 27

Describe Types of Services Offered Through Contra Costa Incentives

Don't know	54%
Carpool (scrip)	16%
Transit tickets	14%
Vanpool	13%
Guaranteed Ride Home	4%
n=	81



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MARIN COUNTY

Marin County residents' drive-alone rate is only one percent higher than the regional average (Figure 28). Ten percent (10%) of all commuters in Marin use transit, just greater than the regional average. Buses and ferries are much more common, since they are the main transit modes that are available between Marin and San Francisco. Only 15% of all commuters carpool in Marin, which is seventh out of nine counties. When commuters were asked why they find it difficult to carpool, the two most common responses were because of irregular hours, and difficulty finding a carpool partner. Many Marin residents work in San Francisco where parking and tolls on the Golden Gate Bridge encourage other modes such as bicycles and the bus and ferry systems.

Since 1996, Marin commuters have been increasing their rate of driving alone (Table 28). Residents who find it difficult to commute on transit most often gave commute time and a lack of service along their route as explanations. Carpooling dropped slightly last year, but in 2001 it has returned to the previous rate of 15%.




FIGURE 28
Primary Commute Mode



OTHER 1%

n=400

TABLE 28
Clustered Modes Over Time

	1994	1996	1999	2000	2001
	67%	61%	64%	68%	71%
	14%	15%	15%	12%	15%
	10%	17%	16%	16%	10%
OTHER	11%	7%	6%	6%	5%

Marin residents are less likely to use a connecting mode than the average Bay Area commuter (Table 29). The use of bicycles as a connecting mode is more common in Marin, highlighting the fact that both Golden Gate Transit buses and the ferries accommodate bicycles during commute hours.

Commute Distance and Time

Residents of Marin have a slightly higher than average commute distance, and spend about five more minutes getting to work each way (Figure 29). Their average speed is slightly below the region's average.

TABLE 29
Top Five Connecting Modes











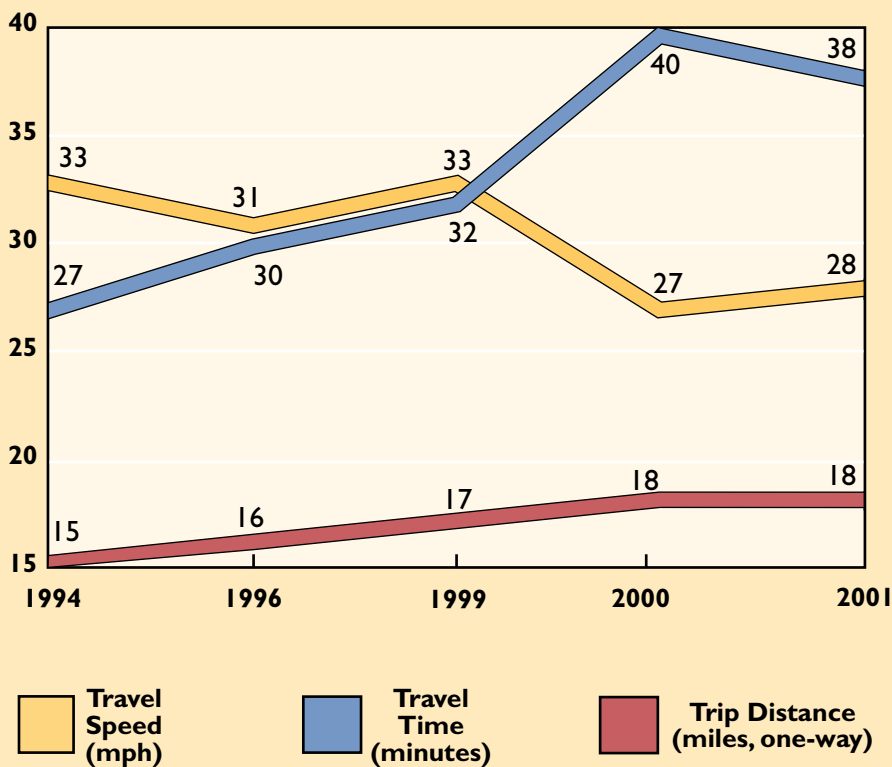
Marin County		Region	
	2%		3%
	2%		2%
	2%		2%
	1%		2%
	1%		1%
Total: All Connecting Modes			
9%		11%	

FIGURE 29
Commute Distance and Time



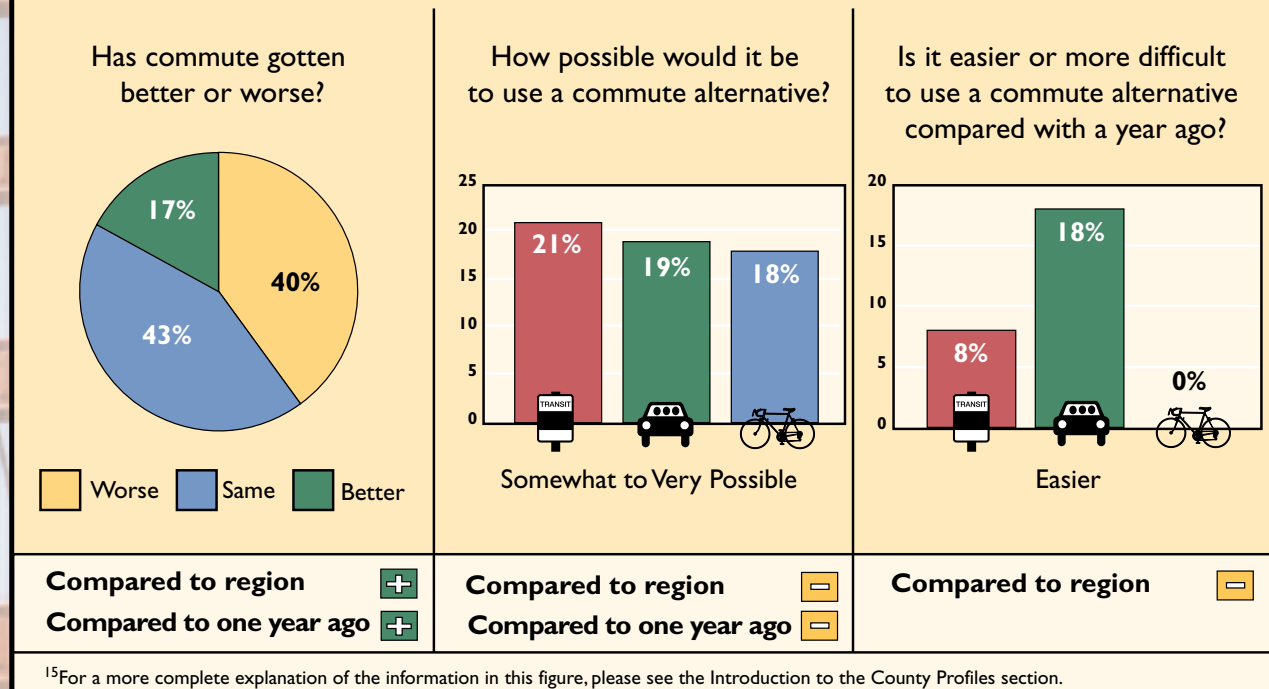
Since 1994, commuters in Marin have seen only a slight increase in the distance they are commuting, but have increased their time from 27 minutes to 38 minutes one way to work. Eighty-two (82%) of the respondents in Marin who indicated that their commute has worsened said it was due to heavier traffic.

Perceptions of Commute Conditions and Options

Compared with all nine Bay Area counties, Marin ranks fifth with two pluses and three minuses (Figure 30). Although roads are congested and commute speeds are relatively slow, more Marin residents believe their commute has gotten better over the

FIGURE 30

Perceptions of Commute Conditions and Options¹⁵



last year compared with respondents from the region as a whole and Marin County respondents from the previous year. However, the percentage who believe that it is difficult to use a commute alternative is higher than both the region and how Marin resi-

dents responded in 2000. The percentage of commute alternative users who believe it is easier to use those modes this year compared with last year is also less than the regional perspective.

NAPA COUNTY

Napa County has both one of the highest drive-alone rates and one of the highest carpool rates in the Bay Area (Figure 31). Transit is used by only two percent of Napa commuters, due to the fact that there is very little transit service available. Napa's lower density development makes it more challenging to provide transit service for the commute market.

The past year has seen some positive trends among commute patterns in Napa (Table 30). The drive-alone rate and carpool rate returned to a level closer to the years prior to 2000. It appears that 2000 may have been an aberration.




Napa residents rarely use a connecting mode in their commute (Table 31). This coincides with a high drive-alone rate, since most people who drive alone to work would have no reason to use a connecting mode. Of the six percent of Napa commuters who do use a connecting mode, walking and carpooling are the most common.

FIGURE 31
Primary Commute Mode



n=400

TABLE 30
Clustered Modes Over Time

	1994*	1996*	1999	2000	2001
	70%	73%	74%	79%	74%
	19%	18%	20%	16%	20%
	5%	4%	1%	1%	2%
OTHER	7%	5%	5%	5%	4%

* Napa and Sonoma counties

Commute Distance and Time

Napa commuters have a slightly higher than average commute distance, but a below average commute time (Figure 32). Therefore, their average speed is about 10 mph above average, illustrating the lack of congestion in Napa County, as well as the fact that so many people drive alone to work.

TABLE 31
Top Five Connecting Modes











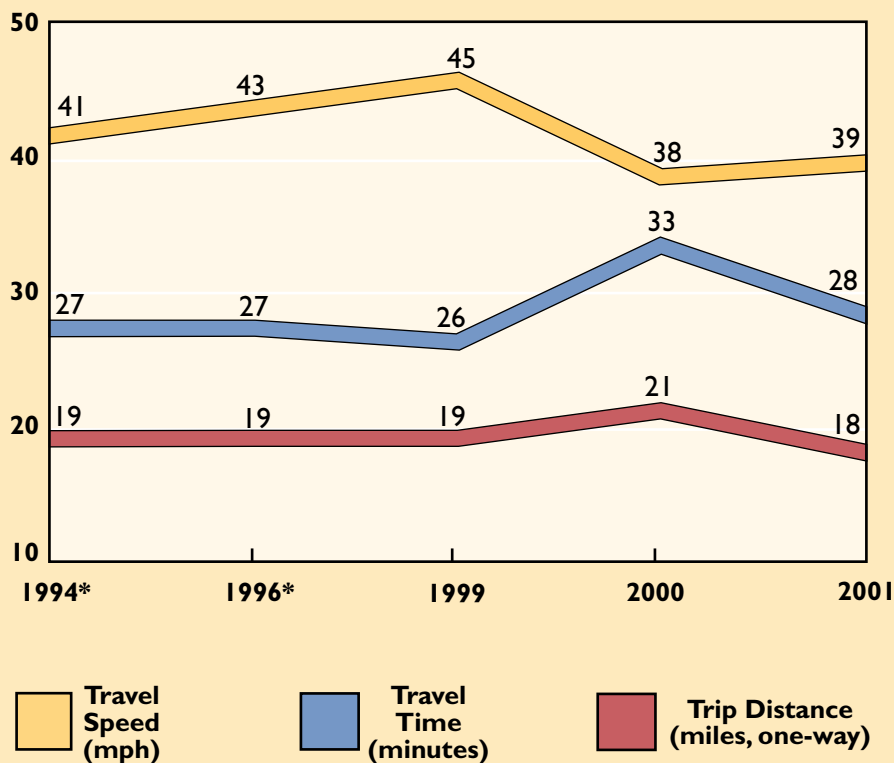
Napa County		Region	
	2%		3%
	2%		2%
	1%		2%
	1%		2%
	1%		1%
Total: All Connecting Modes			
7%		11%	

FIGURE 32
Commute Distance and Time



* Napa and Sonoma counties

Perceptions of Commute Conditions and Options

Compared to the other eight Bay Area counties, Napa County ranks fourth with two pluses, two minuses and an equal (Figure 33). An above average number of respondents

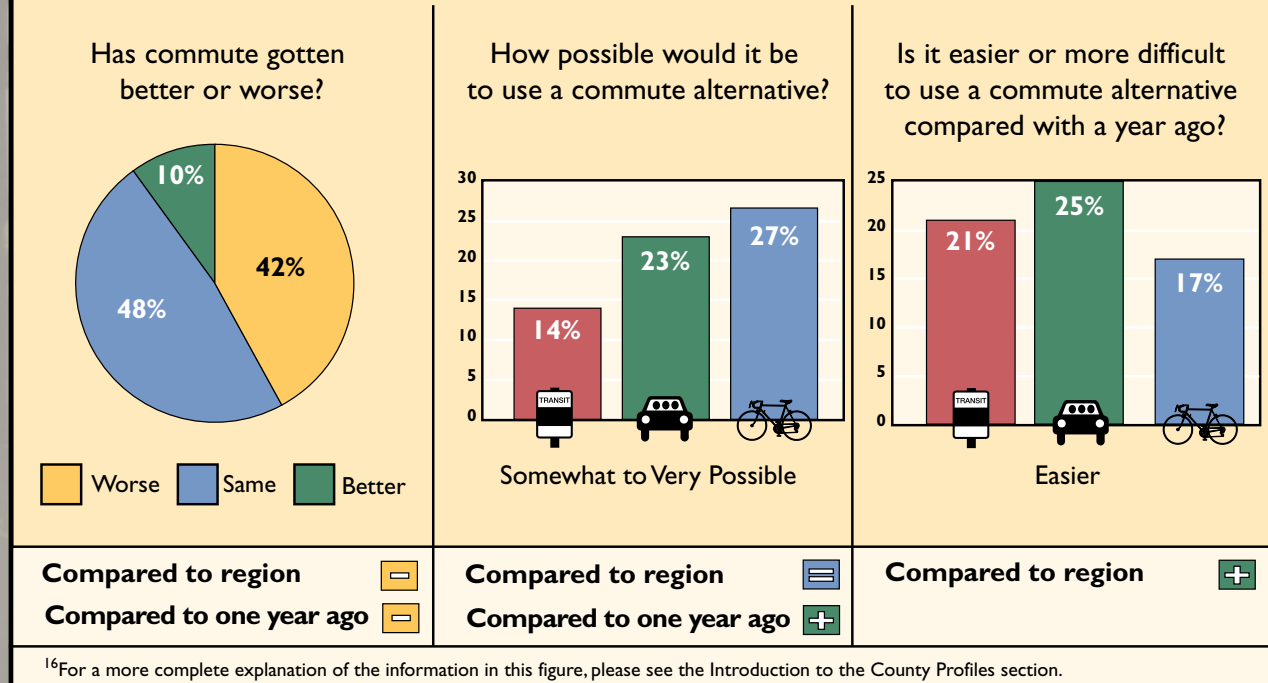
believe that it is easier to use a commute alternative than it was a year ago. The percentage of commuters who believe that it is "somewhat" to "very possible" to use a commute alternative is consistent with the region as a whole, and higher than

last year's data. However, compared to the region and to last year's results, more people believe that their commute has gotten worse in

Napa during the past year, due mostly to a relative increase in traffic congestion.

FIGURE 33

Perceptions of Commute Conditions and Options¹⁶



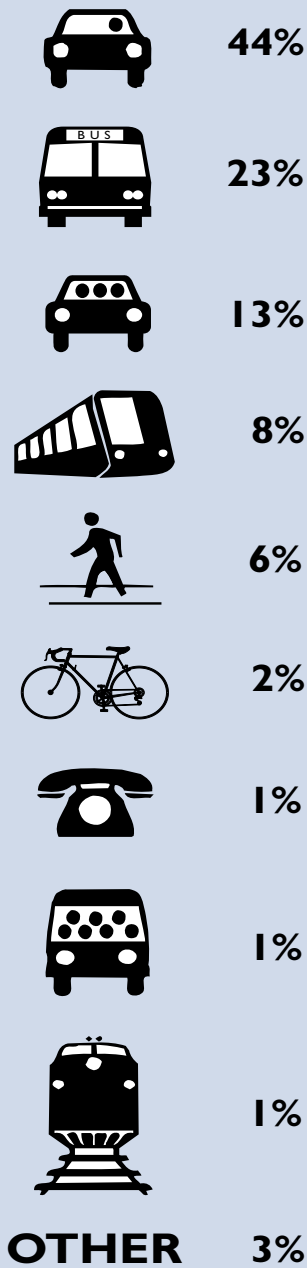
S A N F R A N C I S C O C O U N T Y

San Francisco residents have historically had the lowest drive-alone rate and the highest transit use rate in the Bay Area (Figure 34). The high density, limited parking and extensive transit service encourages residents to leave their cars at home (or not own one at all) and seek out other methods of commuting. San Francisco commuters are also much more likely to walk to work or ride a bike than is the average Bay Area commuter.

Since 1993, all commute modes in San Francisco have fluctuated (Table 32). The only clear trend worth noting is that the percentage of commuters who use transit has been decreasing since its high point in 1996. Of the commuters who believe that commuting on transit is difficult, the most common reason (26%) indicated was the extra commute time. Residents in San Francisco County have consistently used the most varied methods of commuting in the Bay Area since 1993.




Eight percent more commuters in San Francisco use a connecting mode in their daily trip to work than Bay

FIGURE 34
Primary Commute Mode



n=400

TABLE 32
Clustered Modes Over Time

	1993	1994	1996	1999	2000	2001
	41%	46%	37%	40%	45%	44%
	11%	9%	9%	12%	8%	13%
	35%	35%	41%	37%	36%	31%
OTHER	14%	10%	13%	10%	11%	12%

Area commuters in general (Table 33). This is consistent with the high rate of transit and "other" mode use. These modes are more likely to involve the use of connecting modes to complete a one-way trip.

Commute Distance and Time

San Francisco commuters travel a shorter than average distance to work, but at a slower than average speed (Figure 35). This is a result of the congestion in the city, as well as the high percentage of commuters who use slower modes, such as biking, walking and taking transit. During the past year, the average commute

TABLE 33
Top Five Connecting Modes











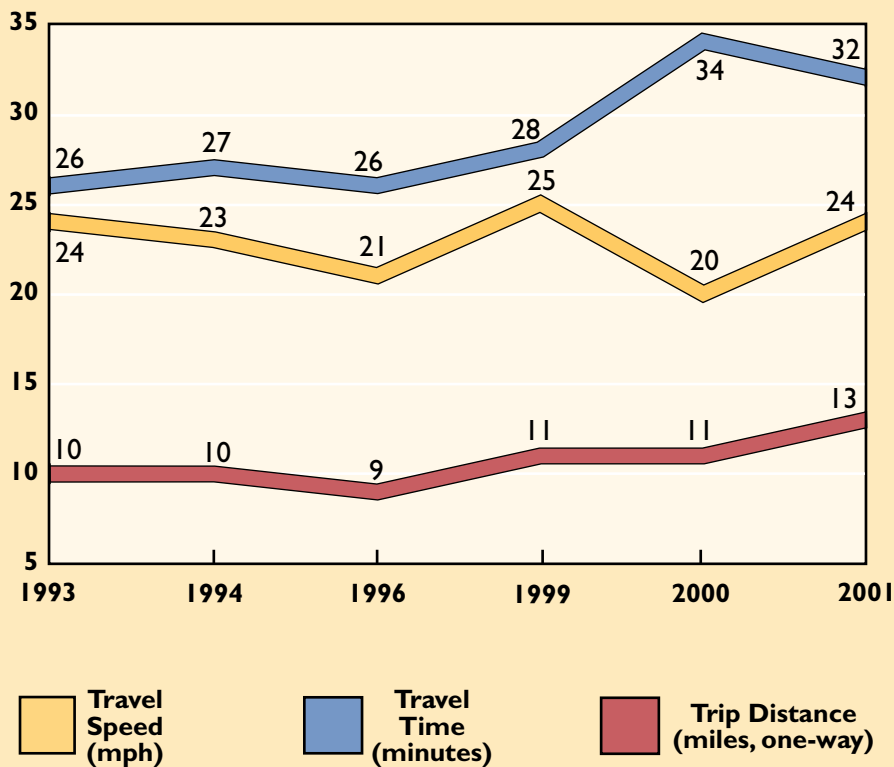
San Francisco County		Region	
	5%		3%
	5%		2%
	3%		2%
	3%		2%
	3%		1%
Total: All Connecting Modes			
19%		11%	

FIGURE 35
Commute Distance and Time



distance increased by two miles, but the average time decreased by two minutes. This may be a result of the shifting mode trends, or perhaps a result of an improvement in city-wide congestion.

Perceptions of Commute Conditions and Options

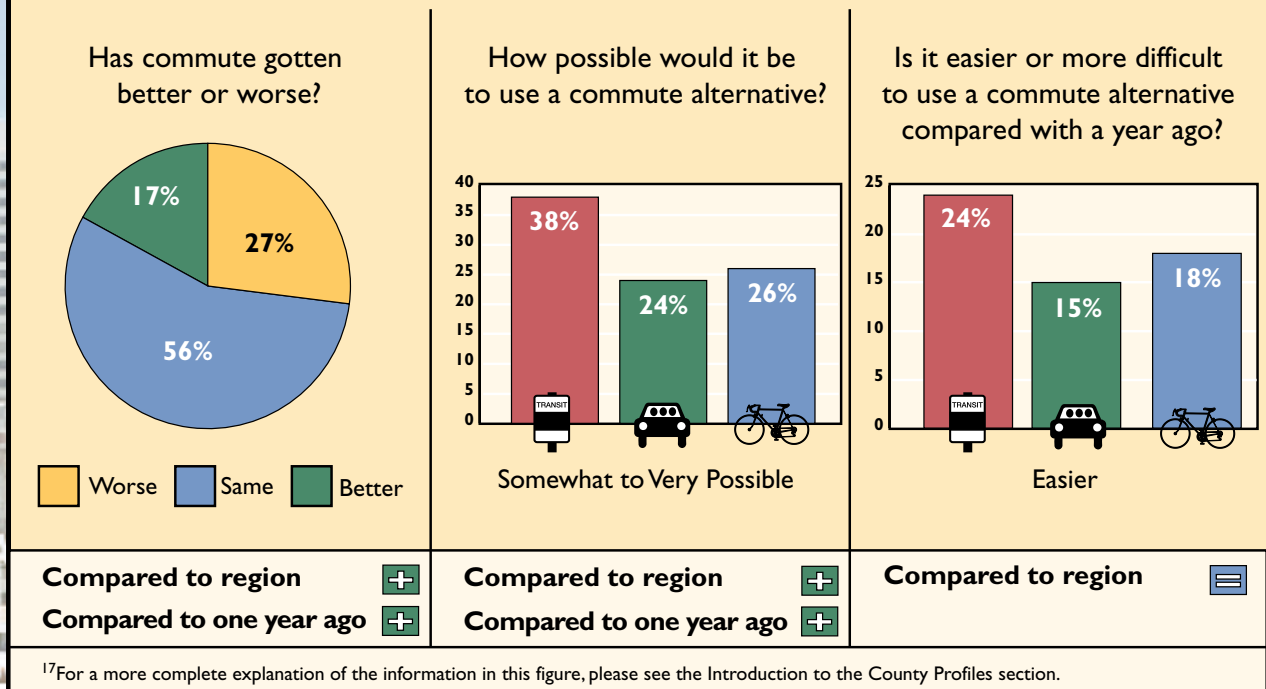
San Francisco ranks second out of all nine Bay Area counties with an overall score of four pluses and one equal (Figure 36). In general, San Francisco respondents stated that their commutes have improved, believe using a commute alternative is possible, and



are comparable to all Bay Area residents in regards to their perception as to whether it has gotten easier to use a commute alternative. Commuters in San Francisco have the luxury of many practical alternative

ways of getting to work available to them. Twenty-seven percent of San Francisco commuters who believe that their commute has improved indicated that it was due to decreased traffic congestion.

FIGURE 36
Perceptions of Commute Conditions and Options¹⁷

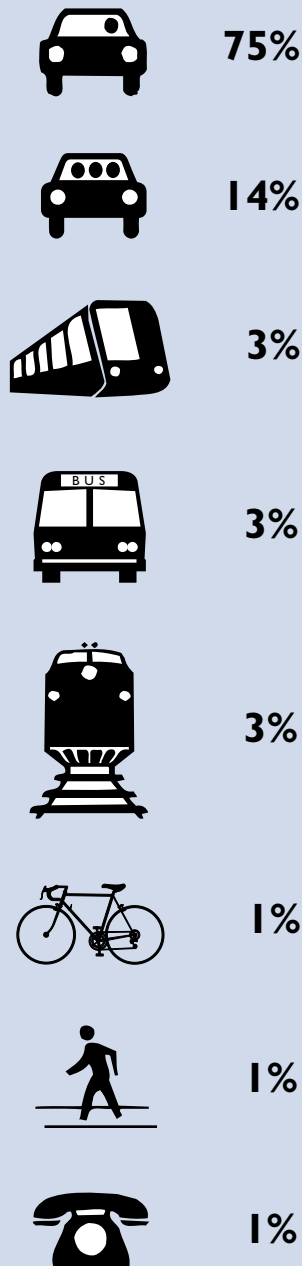


S A N M A T E O C O U N T Y

San Mateo County offers its residents a variety of commute alternatives, including BART, Caltrain and SamTrans buses. Despite these options, San Mateo commuters drive alone at a rate five percent higher than the Bay Area average (Figure 37). Only residents in Sonoma and Santa Clara counties drive alone more often. Compared to the entire region, San Mateo residents carpool less frequently and use BART and other transit modes at about the same rate. When asked why they find it difficult to carpool to work, respondents living in San Mateo most often chose difficulty finding carpool partners and irregular work hours as the reasons. The most common reasons stated for not using transit are taking too much time and not having service on their route. Commuters in San Mateo are also more likely to telecommute.




The long-term trend for the drive-alone rate in San Mateo appears to be moving slowly upward (Table 34). Carpooling has showed some moderate increases over the last two years, but more of a downward trend since 1993. Transit use has stayed basically

FIGURE 37
Primary Commute Mode



n=400











TABLE 34
Clustered Modes Over Time

	1993	1994	1996	1999	2000	2001
	70%	72%	66%	75%	73%	75%
	17%	17%	18%	12%	13%	14%
	8%	7%	9%	9%	11%	9%
OTHER	5%	4%	6%	4%	4%	2%

consistent at around 9%, while the use of other modes has decreased this year. One explanation for the increase in driving alone could be the creation of many high tech jobs both in San Mateo and Santa Clara counties. These jobs often require long and erratic work schedules that make it difficult to carpool or rely on transit.

San Mateo residents are two percent less likely to use a connecting mode than the average Bay Area commuter (Table 35). This coincides with the higher drive-alone rate and the lower use of connecting modes among drive-alone commuters.

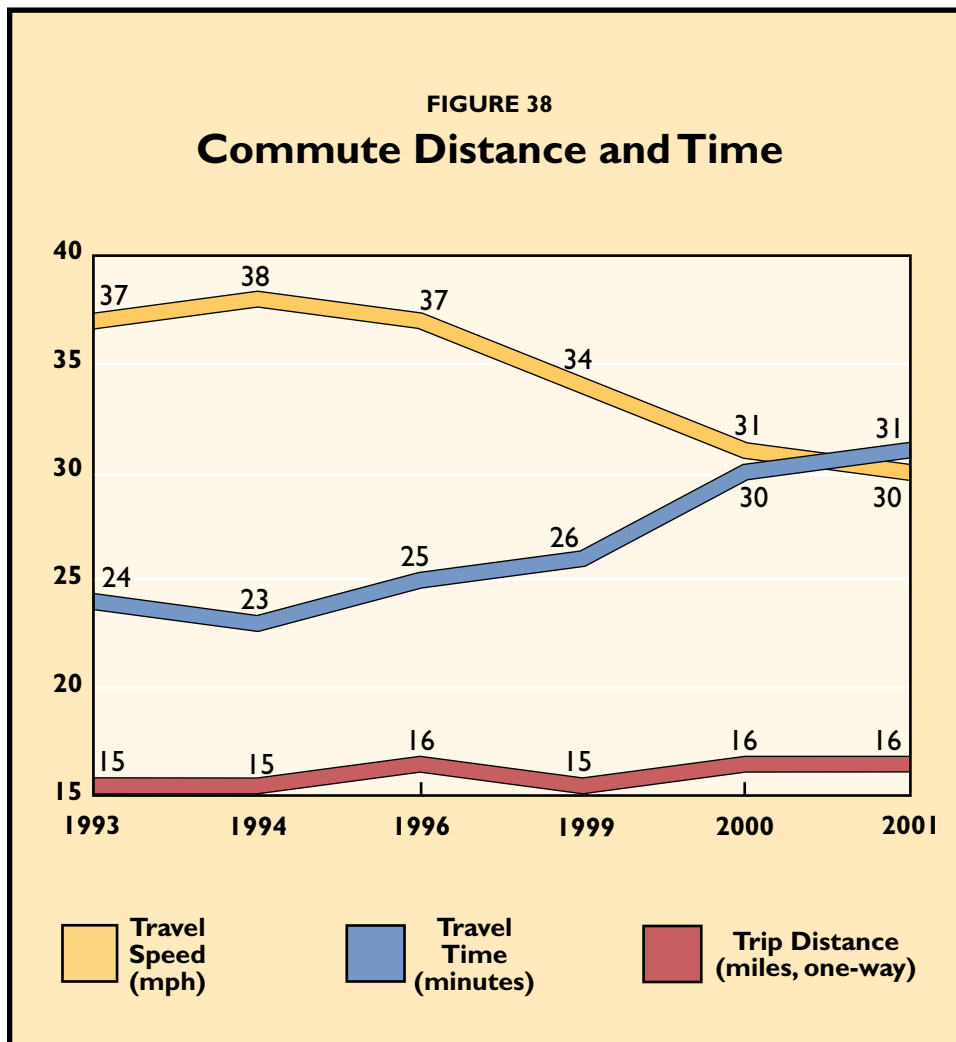
TABLE 35
Top Five Connecting Modes

San Mateo County		Region	
	2%		3%
	2%		2%
	1%		2%
	1%		2%
	1%		1%
Total: All Connecting Modes			
9%		11%	

Commute Distance and Time

Compared to all Bay Area commuters, San Mateo residents have an average commute in terms of distance, time and speed (Figure 38). Since 1994, the average speed for San Mateo commuters has been declining, due to the fact that the commute

time has increased while the commute distance has remained consistent. Since commuters in San Mateo are actually driving alone more often in 2001 than they were in 1994, the slower commute time is most likely an illustration of increased traffic congestion.



Perceptions of Commute Conditions and Options

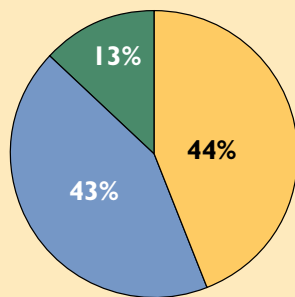
San Mateo ranks seventh with two equals and three minuses (Figure 39). Compared to the region, fewer residents indicated that it is easier to use any type of commute alternative than it was a year ago. Very few commuters believe that it is even somewhat possible to use a commute alternative, and compared to last year

more people indicated that their commute has gotten worse in the county. As in most counties, the large majority of the survey respondents (77%) stated that heavier traffic is responsible for worsening commute conditions.

FIGURE 39

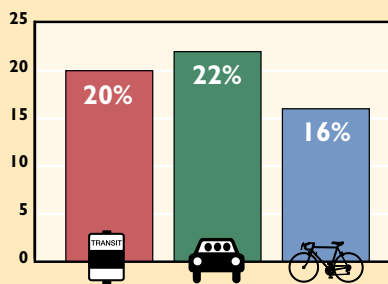
Perceptions of Commute Conditions and Options¹⁸

Has commute gotten better or worse?



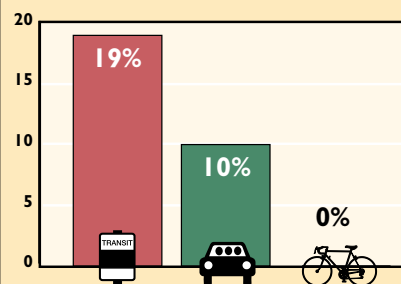
Worse Same Better

How possible would it be to use a commute alternative?







Somewhat to Very Possible


Is it easier or more difficult to use a commute alternative compared with a year ago?



Easier

Compared to region 
Compared to one year ago 

Compared to region 
Compared to one year ago 

Compared to region 

¹⁸For a more complete explanation of the information in this figure, please see the Introduction to the County Profiles section.

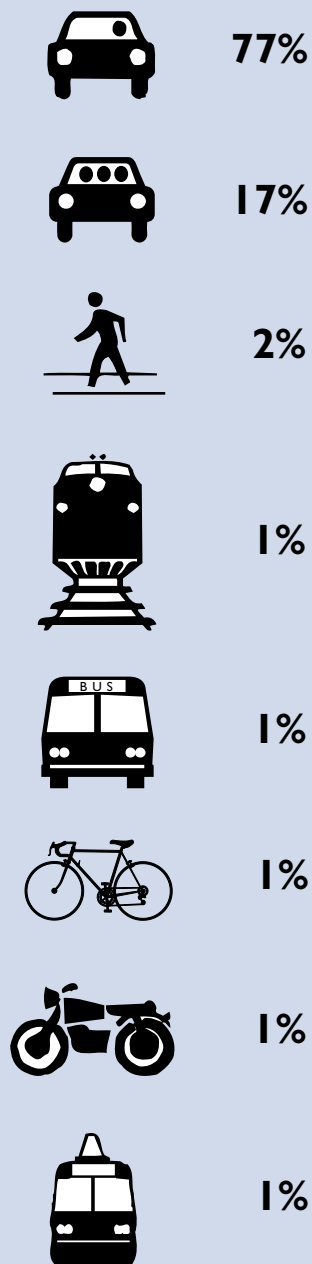
SANTA CLARA COUNTY

Santa Clara commuters tie with Sonoma commuters for the highest drive-alone rate in the Bay Area at 77% (Figure 40). While carpooling is about average compared with the region, transit use is low. A higher level of free parking (88% of Santa Clara residents have free parking at the worksite compared to 78% of the region), short commutes and dispersed employment locations (making transit service more difficult to provide) contribute to the higher drive-alone rate. When asked about their reasons for using their mode, Santa Clara commuters who drive alone gave a variety of answers. The four most common reasons include having no other way to get to work (17%), irregular work hours (14%), travel time to work (11%), and needing a vehicle during the day (10%).

There have been very few fluctuations in the rate of commute modes over the past three or four years among Santa Clara commuters (Table 36).

Only six percent (6%) of residents of Santa Clara use a connecting mode in their daily commute (Table 37). Since




FIGURE 40
Primary Commute Mode



n=400



TABLE 36
Clustered Modes Over Time

	1993	1994	1995	1996	1998	1999	2000	2001
	78%	71%	71%	74%	77%	77%	77%	78%
	15%	17%	21%	18%	18%	15%	15%	17%
	4%	7%	4%	3%	3%	5%	4%	3%
OTHER	3%	5%	4%	5%	1%	2%	4%	3%

the large majority of them drive alone to work, there is little need for a connecting mode.

Commute Distance and Time

Santa Clara commuters have the shortest average commute distance in the entire Bay Area, but also the second slowest commute speed (Figure 41). Since Santa Clara is the region's largest employer, the high number of vehicles on the road creates longer than average commute times for commuters.

TABLE 37
Top Five Connecting Modes











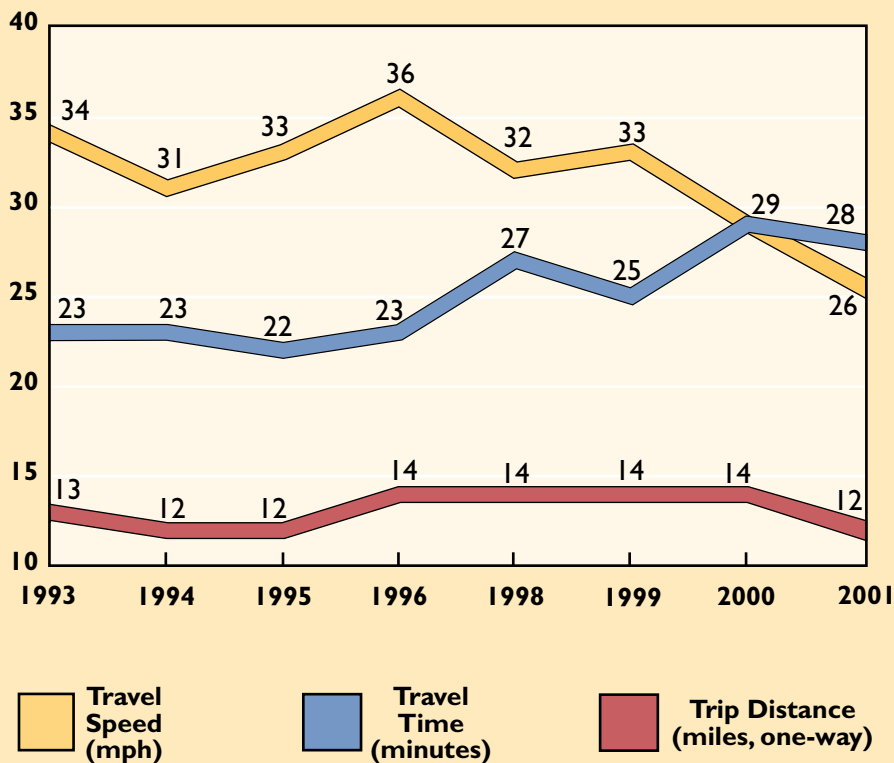
Santa Clara County		Region	
	2%		3%
	1%		2%
	1%		2%
	1%		2%
	1%		1%
Total: All Connecting Modes			
6%		11%	

FIGURE 41
Commute Distance and Time



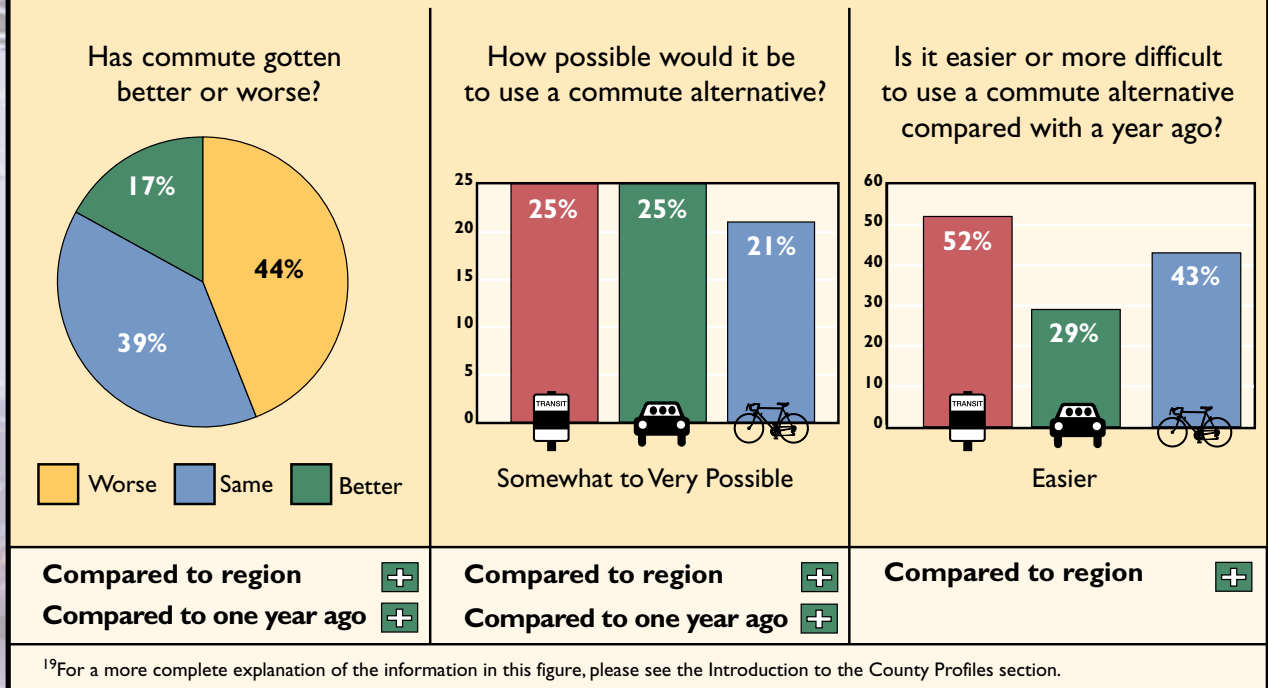
Perceptions of Commute Conditions and Options

Although Santa Clara has one of the highest drive-alone rates, one of the lowest transit usage rates, and one of the slowest average commute speeds, it has the highest overall score—five pluses (Figure 42). Compared to both last year's data and the region as a

whole, more people believe that their commute has improved, that it is at least somewhat possible to use a commute alternative, and that the accessibility of a commute alternative has improved in the past year. Of the 52% who indicated that it has gotten easier to use transit over the past year, 31% listed improved service



FIGURE 42
Perceptions of Commute Conditions and Options¹⁹



reliability or frequency as a reason. It is interesting to note that residents in Santa Clara believe that there are options available to them, and yet are not choosing to use those alternative commute modes. Since 82% of the Santa Clara residents surveyed work

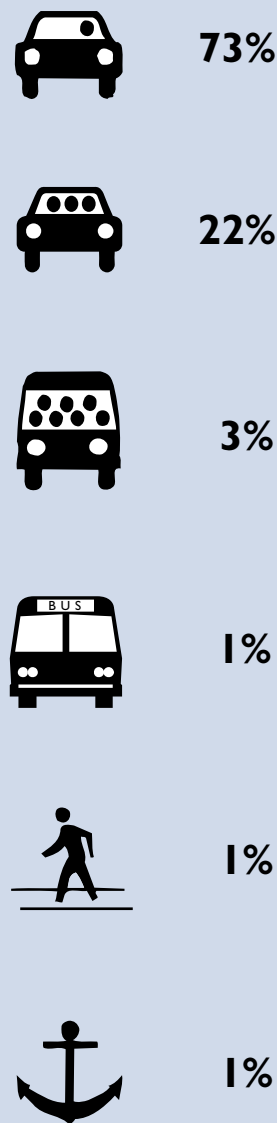
within their home county, the relatively short distance commutes may contribute to the fact that so many people believe that they have options, but do not feel the need to use them.

S O L A N O C O U N T Y

Solano County has the highest carpooling and vanpooling rates of any county (Figure 43). Solano residents tend to have longer commutes, which make carpooling and vanpooling more time and cost effective. The drive-alone rate, however, is slightly higher than average because of the relatively low use of transit among residents.

The drive-alone rate in Solano County dipped to its lowest point in 1999 at 66% (Table 38). Since then, the percentage of commuters who drive alone has climbed back to 73%. The carpool rate has fluctuated since data collection began in 1993, but in 2001 is back near its highest level. The transit rate has dipped considerably in the past year, to the lowest level in eight years at 2%. The drop in transit use may be a result of this year's collection of connecting mode data (as discussed in the Regional Profile section of the report under Commute Mode). Solano commuters who use BART, in particular, travel a long distance to access it and may have been reclassified. Solano commuters who find it difficult to use




FIGURE 43
Primary Commute Mode



n=400













TABLE 38
Clustered Modes Over Time

	1993	1994	1995	1996	1998	1999	2000	2001
	68%	72%	73%	67%	77%	66%	72%	73%
	25%	22%	22%	23%	18%	25%	19%	24%
	4%	3%	3%	5%	4%	4%	7%	2%
OTHER	3%	3%	3%	6%	2%	4%	3%	1%

transit stated most often (29%) that there is no service along their commute route.

Two percent (2%) fewer Solano County residents use a connecting mode in their commute compared with the average Bay Area commuter (Table 39). Although transit use is relatively low, the high numbers of carpools and vanpools creates a common need for commuters to get to a general pick up location.

TABLE 39
Top Five Connecting Modes

Solano County		Region	
	2%		3%
	2%		2%
	2%		2%
	2%		2%
	1%		1%
Total: All Connecting Modes			
9%		11%	

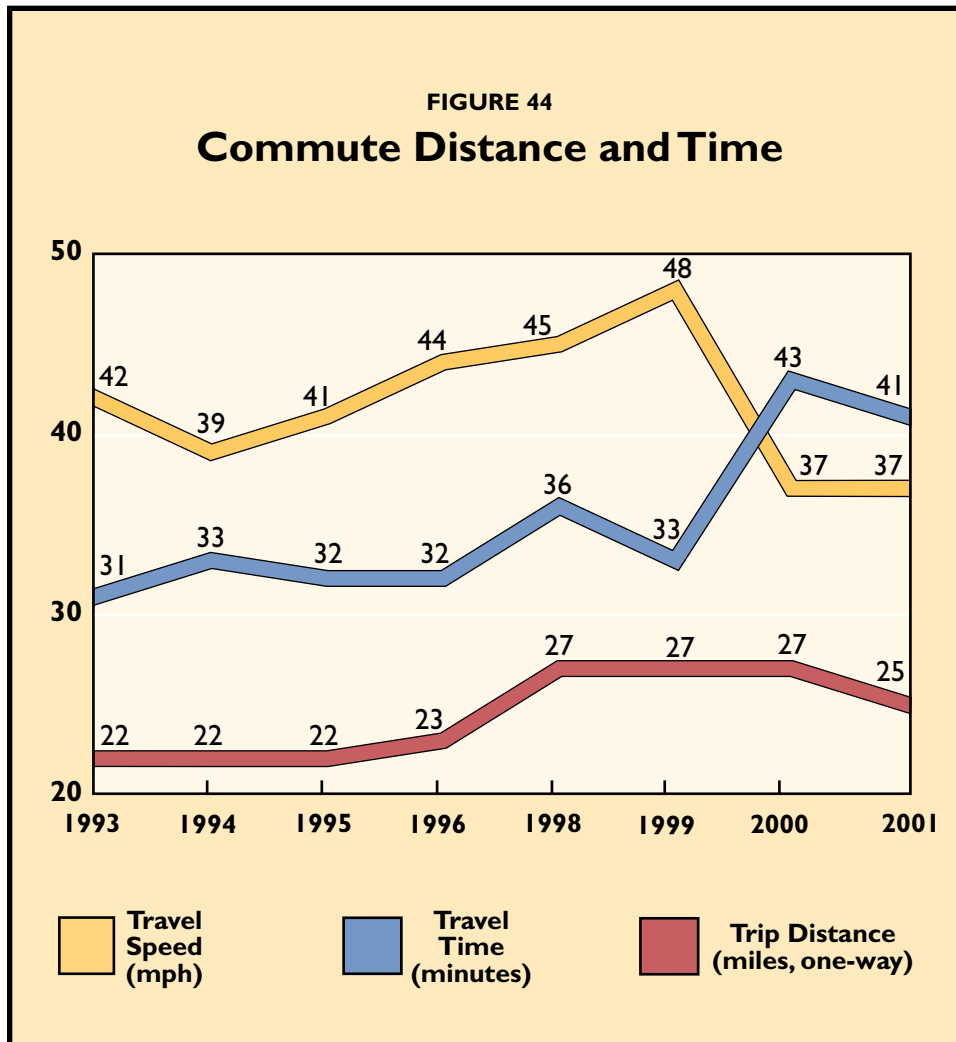
Commute Distance and Time

Commuters in Solano County travel the farthest to reach their jobs, an average distance of 25 miles one-way (Figure 44). They have the second highest travel time and the fastest commute speed. While Solano County commuters have a long dis-

tance to travel, they usually do not have to battle with the highest levels of traffic congestion in the Bay Area.

Perceptions of Commute Conditions and Options

Solano County ranks sixth out of the nine Bay Area counties with three



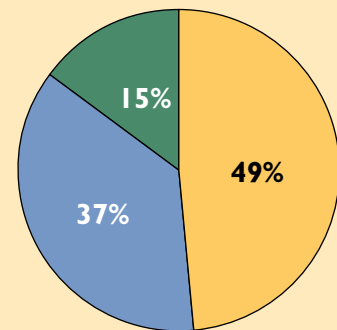
minuses, one plus and one equal (Figure 45). Compared to both the region and last year's data, more people in Solano County believe that their commute has gotten worse. Seventy-five percent (75%) of respondents blame the decline on an increase in traffic. Compared to the

entire Bay Area, fewer people believe that using a commute alternative is at least somewhat possible. However, compared with county statistics from last year, more people believe that a commute alternative is a realistic option.

FIGURE 45

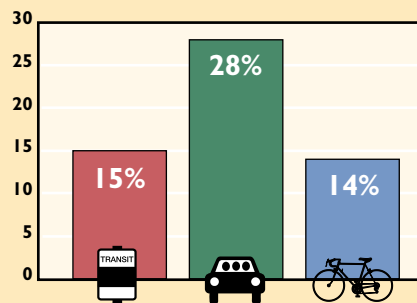
Perceptions of Commute Conditions and Options²⁰

Has commute gotten better or worse?



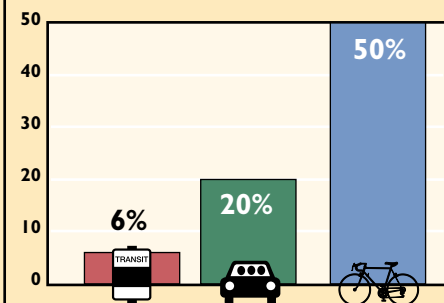
Worse Same Better

How possible would it be to use a commute alternative?



Somewhat to Very Possible

Is it easier or more difficult to use a commute alternative compared with a year ago?



Easier

Compared to region



Compared to one year ago



Compared to region



Compared to one year ago



Compared to region



²⁰For a more complete explanation of the information in this figure, please see the Introduction to the County Profiles section.

SONOMA COUNTY

Seventy-seven percent (77%) of Sonoma County commuters drive alone to work (Figure 46). Sonoma residents are tied with Santa Clara residents for driving alone in the greatest numbers. The carpool rate is higher than average and the third highest in the region, at 19%. Since Sonoma is a less densely populated area, transit service is more limited and therefore only 3% of commuters use it to get to work.

During the past few years, the drive-alone rate has increased and carpooling has remained relatively flat (Table 40). Both the percentage of people using transit and those using other modes have decreased slightly over this same time period. Twenty-six percent (26%) of Sonoma County commuters who find it difficult to use transit indicated that there is a lack of service available on their route.

Sonoma County residents rarely use a connecting mode in their commute (Table 41). The high drive-alone rate means that for most commuters there is not a need for a connecting mode.




FIGURE 46
Primary Commute Mode



n=400



TABLE 40
Clustered Modes Over Time











	1994*	1996*	1999	2000	2001
	70%	73%	74%	77%	77%
	19%	18%	17%	17%	19%
	5%	4%	4%	3%	3%
OTHER	7%	5%	5%	4%	2%

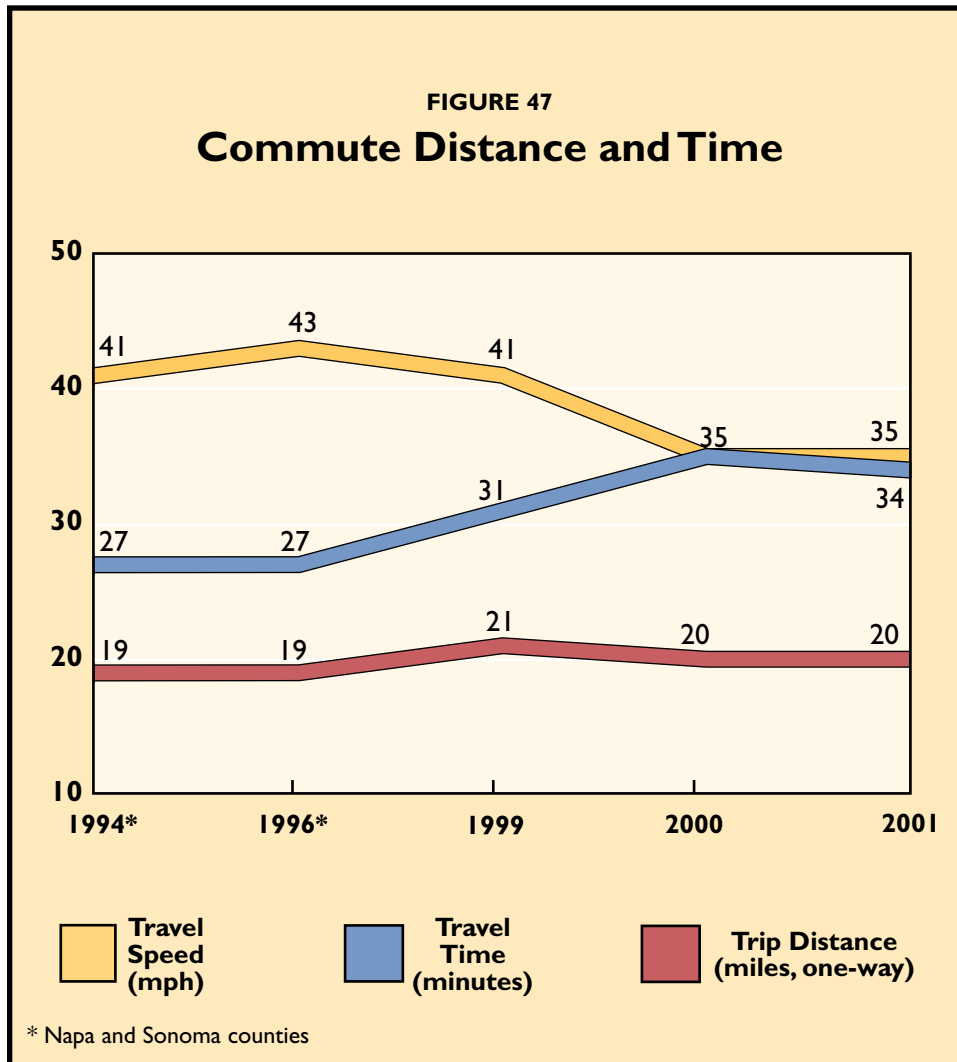
* Napa and Sonoma counties

Commute Distance and Time

Sonoma County commuters have the third longest distance to travel to work, but an average commute time equivalent to the regional average (Figure 47). Therefore, their commute speed is higher than average. Sonoma is a rural area, with relatively little traffic congestion which makes average vehicle speed in the county higher than most other Bay Area counties.

TABLE 41
Top Five Connecting Modes

Sonoma County		Region	
	1%		3%
	1%		2%
	1%		2%
	1%		2%
	1%		1%
Total: All Connecting Modes			
5%		11%	



Perceptions of Commute Conditions and Options

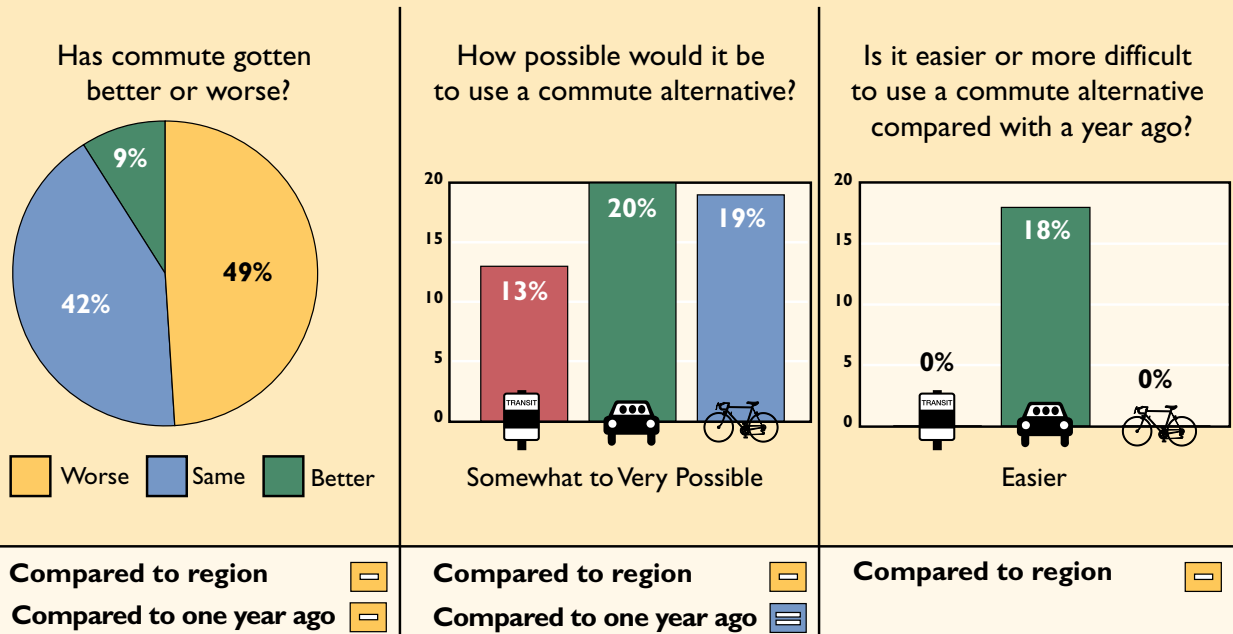
Sonoma County has the lowest rating in the Bay Area with four minuses and one equal (Figure 48). Commuters in general feel that their commutes have gotten worse recently; 80% attribute it to an increase in traffic. Sonoma residents are not likely to use a com-

mute alternative, and very few people feel that it is easier to use a commute alternative than it was a year ago. Overall, Sonoma County residents seem less satisfied with their commutes and the available options than respondents from other counties.



FIGURE 48

Perceptions of Commute Conditions and Options²¹



²¹For a more complete explanation of the information in this figure, please see the Introduction to the County Profiles section.



APPENDICES

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COMMUTE PROFILE 2001 QUESTIONNAIRE

Hello, my name is _____, with [contractor's name], a public opinion research firm. We're talking to people about their commute experiences so commuting in the Bay Area can be improved.

1. In which county do you live?

- | | |
|-------------------------|-----|
| 1. Alameda | 21% |
| 2. Contra Costa | 13% |
| 3. Marin | 4% |
| 4. Napa | 2% |
| 5. San Francisco | 12% |
| 6. San Mateo | 11% |
| 7. Santa Clara | 26% |
| 8. Solano | 6% |
| 9. Sonoma | 6% |
| 10. Other (skip to end) | |

2. Are you 18 years or older and do you work 35 hours or more a week as an employee or independent business person?

1. Yes (skip to 6)
2. No (skip to 3)
3. None (skip to end)

3. May I speak with someone in your household who is?

1. Yes (skip to 6)
2. No/not available now

4. What is the person's name: _____

5. When is a good time to call: _____ (skip to end)

6. Do you currently hold more than one job?

1. Yes
[If Yes: Please answer the questions in this survey with respect to your primary job and primary work site.]
2. No

7. How many days do you work each week?

1 2 3 4 5 6 7 average = 5

8. How do you usually get to work? [select one]

1. Drive alone	69%	(skip to 10)
2. Carpool	17%	(skip to 10)
3. Vanpool	<1%	(skip to 10)
4. BART	4%	(skip to 10)
5. Bus	5%	(skip to 10)
6. Caltrain	1%	(skip to 10)
7. Altamont Commuter Express	<1%	(skip to 10)
8. Light Rail	<1%	(skip to 10)
9. Ferry	<1%	(skip to 10)
10. Bicycle	1%	(skip to 10)
11. Motorcycle	<1%	(skip to 10)
12. Walk or jog	2%	(skip to 10)
13. Work at home/telecommute	<1%	(ask 9)
14. Other	1%	(skip to 10)

9. Is this a home-based business without any other regular work location outside your home?

1. Yes (skip to end)
2. No

10. Would that be [response to Q7] days a week?

1. Yes 0% (skip to Q12)
2. No 100%

11. How else do you get to work? [select up to 3 most frequently used]

1. Drive alone	22%
2. Carpool	19%
3. Vanpool	<1%
4. BART	9%
5. Bus	4%
6. Caltrain	3%
7. Altamont Commuter Express	<1%
8. Light Rail	<1%
9. Ferry	1%
10. Bicycle	4%
11. Motorcycle	2%
12. Walk or jog	3%
13. Work at home/telecommute	32%
14. Other	1%

12. You indicated that you normally commute to work [response to Q8]. Is the entire trip made by [response to Q8] or is some other type of transportation combined with this on the same day to get from home to work?

- | | | |
|----|--|-----|
| 1. | Yes | 10% |
| 2. | No | 90% |
| | (if Q8=1 skip to 16; if Q8=2 or 3 skip to 14; if Q8=4+ skip to 18) | |
| 3. | Refused/don't know | |
| | (if Q8=1 skip to 16; if Q8=2 or 3 skip to 14; if Q8=4+ skip to 18) | |

13. What other modes do you use? [select up to 3]

- | | | |
|-----|--------------------------|-----|
| 1. | Drive alone | 25% |
| 2. | Carpool | 16% |
| 3. | Vanpool | <1% |
| 4. | BART | 18% |
| 5. | Bus | 17% |
| 6. | Commuter Train | 4% |
| 7. | Light Rail | 1% |
| 8. | Ferry | 1% |
| 9. | Bicycle | 7% |
| 10. | Motorcycle | 1% |
| 11. | Walk or jog | 10% |
| 12. | Work at home/telecommute | <1% |
| 13. | Other | <1% |

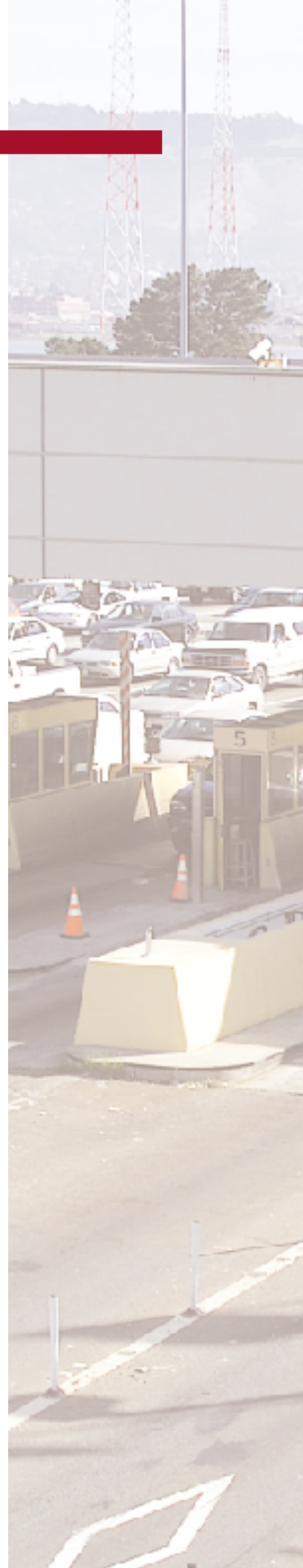
[questions for primary mode = carpool or vanpool (Q8 = 2 or 3)]

14. Including yourself and the driver, what is the total number of persons usually in the vehicle? average = 3

15. With whom do you regularly carpool/vanpool?

[read choices; select all that apply]

- | | | |
|----|---|-----|
| 1. | Household members | 42% |
| 2. | Non-household relatives | 3% |
| 3. | Co-workers | 38% |
| 4. | Friends, acquaintances, neighbors | 8% |
| 5. | Someone from a matchlist/RIDES/755-POOL | 1% |
| 6. | Casual carpool with different people each day | 7% |
| 7. | Other | 0% |
| 8. | Refused/don't know | 1% |



[questions for primary mode = drive alone (Q8=1)]

16. When you say you drive alone to work, do you mean . . .

[read choices; select up to 3]

- | | | |
|--|-----|---------------|
| 1. You sometimes have children? | 13% | |
| 2. You sometimes have other household members? | 4% | |
| 3. You sometimes have "others"? | 3% | |
| 4. You never have anyone with you? | 80% | (skip to Q18) |
| 5. Refused/don't know | 0% | |

17. How often do you have other people in the vehicle with you? *[select one]*

- | | |
|--------------------------------|-----|
| 1. Three to five days per week | 68% |
| 2. One to two days per week | 15% |
| 3. Less than one day per week | 17% |

[questions for all respondents]

18. How long have you been *[using the method of transportation you use]* to get to work? _____ years, or _____ months mean = 10 years

19. What are your reasons for *[response to Q8]*? *[select up to 3]*

- | | | |
|---|-----|--------------|
| 1. Commuting costs | 9% | (skip to 21) |
| 2. Comfort/relaxation | 9% | (skip to 21) |
| 3. Travel time to work | 13% | (skip to 21) |
| 4. Can use diamond (HOV, carpool) lane | 1% | (skip to 21) |
| 5. Privacy | 1% | (skip to 21) |
| 6. Having vehicle during work | 9% | (skip to 21) |
| 7. Having vehicle before/after work | 4% | (skip to 21) |
| 8. Having vehicle to take kids to day care/school | 3% | (skip to 21) |
| 9. Safety | <1% | (skip to 21) |
| 10. Having no other way to get to work | 16% | (ask 20) |
| 11. Work hours/work schedule | 12% | (skip to 21) |
| 12. Not being dependent on others | 2% | (skip to 21) |
| 13. Want to get home in an emergency | 1% | (skip to 21) |
| 14. Like to come and go as I please | 1% | (skip to 21) |
| 15. No parking available or parking too expensive | 1% | (skip to 21) |
| 16. Habit | 1% | (skip to 21) |
| 17. Love to drive my car | 1% | (skip to 21) |
| 18. Enjoy private time driving to work | 1% | (skip to 21) |
| 19. Environment (reduce pollution/save energy) | 1% | (skip to 21) |
| 20. Stress | 1% | (skip to 21) |
| 21. Incentives offered by employer/other agency | <1% | (skip to 21) |
| 22. Enjoy talking to someone/company | 1% | (skip to 21) |
| 23. Other | 12% | (skip to 21) |
| 24. Refused/don't know | 1% | (skip to 21) |

20. What do you mean by having no other way to get to work?

[select a maximum of 3]

- | | |
|---|-----|
| 1. I don't own a car | 7% |
| 2. There is not practical transit service | 40% |
| 3. Driving is easier and faster than other options | 18% |
| 4. Need car because of my odd/irregular hours | 8% |
| 5. I've never considered other options | 4% |
| 6. Too far from transit at home or work | 6% |
| 7. Too far to bike or walk to work | <1% |
| 8. Need car to make other trips (day care, shopping, lunch) | 2% |
| 9. No one to carpool with | 13% |
| 10. No place to park my car | 1% |
| 11. Refused/don't know | 2% |

21. Is your commute better, about the same or worse now than it was a year ago?

[select one]

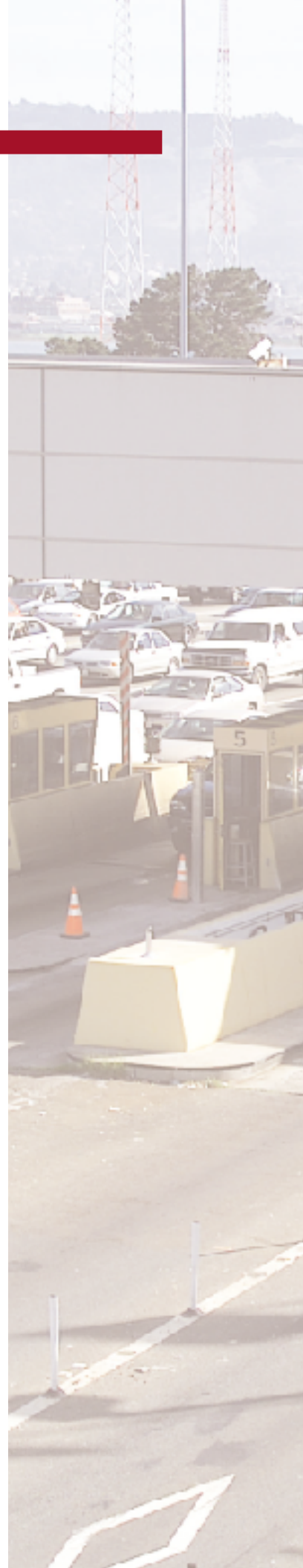
- | | | |
|-----------------------|-----|--------------|
| 1. Better | 14% | |
| 2. About the same | 41% | (skip to 24) |
| 3. Worse | 42% | (skip to 23) |
| 4. Refused/don't know | 3% | (skip to 24) |

22. How has it gotten better? [select a maximum of 3]

- | | | |
|---|-----|-------------------|
| 1. Traffic lighter | 26% | (1+ = skip to 24) |
| 2. Roadway improvements | 7% | |
| 3. Changed mode | 7% | |
| 4. Moved home/changed job or job location | 27% | |
| 5. Changed commute route | 10% | |
| 6. Commuting at different time | 6% | |
| 7. Less road maintenance work | 2% | |
| 8. Weather improved | <1% | |
| 9. Improved/new transit service | 5% | |
| 10. Other | 7% | |
| 11. Refused/don't know | 3% | |

23. How has it gotten worse? [select a maximum of 3]

- | | |
|---|-----|
| 1. Traffic heavier | 72% |
| 2. Construction delays | 9% |
| 3. Changed mode | 1% |
| 4. Moved home/changed job or job location | 3% |



- | | |
|--------------------------------|-----|
| 5. Changed commute route | 2% |
| 6. Commuting at different time | 1% |
| 7. More road maintenance | 2% |
| 8. Weather worse | <1% |
| 9. Transit more crowded/slower | 5% |
| 10. Other | 5% |
| 11. Refused/don't know | <1% |

24. Would you say that it is easier, about the same or more difficult to use transit to get to work now than it was a year ago? [select one]

- | | | |
|-----------------------|-----|---------------|
| 1. Easier | 22% | |
| 2. About the same | 54% | (skip to 25) |
| 3. More difficult | 18% | (skip to 24b) |
| 4. Refused/don't know | 6% | (skip to 25) |

24a. Why is it easier? [select up to 3]

- | | | |
|---|-----|--------------|
| 1. Changed my home or work location | 18% | (1+ skip 25) |
| 2. Better information available | 10% | |
| 3. Service reliability or frequency has improved | 40% | |
| 4. New service has been added | 14% | |
| 5. Employer provides incentives | 1% | |
| 6. Schedule/responsibilities have changed at home or work | 9% | |
| 7. Other | 2% | |
| 8. Refused/don't know | 11% | |

24b. Why is it more difficult? [select up to 3]

- | | |
|---|-----|
| 1. Changed my home or work location | 9% |
| 2. Service has been cut | 6% |
| 3. Service is less frequent | 9% |
| 4. Service is less reliable | 33% |
| 5. Schedule/responsibilities have changed at home or work | 1% |
| 6. Other | 33% |
| 7. Refused/don't know | 9% |

25. Would you say that it is easier, about the same or more difficult to carpool to work now than it was a year ago? [select one]

- | | | |
|-----------------------|-----|---------------|
| 1. Easier | 20% | |
| 2. About the same | 57% | (skip to 26) |
| 3. More difficult | 16% | (skip to 25b) |
| 4. Refused/don't know | 7% | (skip to 26) |

25a. Why is it easier? [select up to 3]

1. Changed my home or work location	19%	(1+ skip to 26)
2. New carpool lane	8%	
3. More people to share ride with	29%	
4. Change in home/work schedule	7%	
5. Other	24%	
6. Refused/don't know	13%	

25b. Why is it more difficult? [select up to 3]

1. Changed my home or work location	5%
2. Traffic is worse	58%
3. Can't use carpool lane	2%
4. Change in home/work schedule	7%
5. Partners no longer available	11%
6. Other	14%
7. Refused/don't know	4%

26. Would you say that it is easier, about the same or more difficult to bicycle to work now than it was a year ago? [select one]

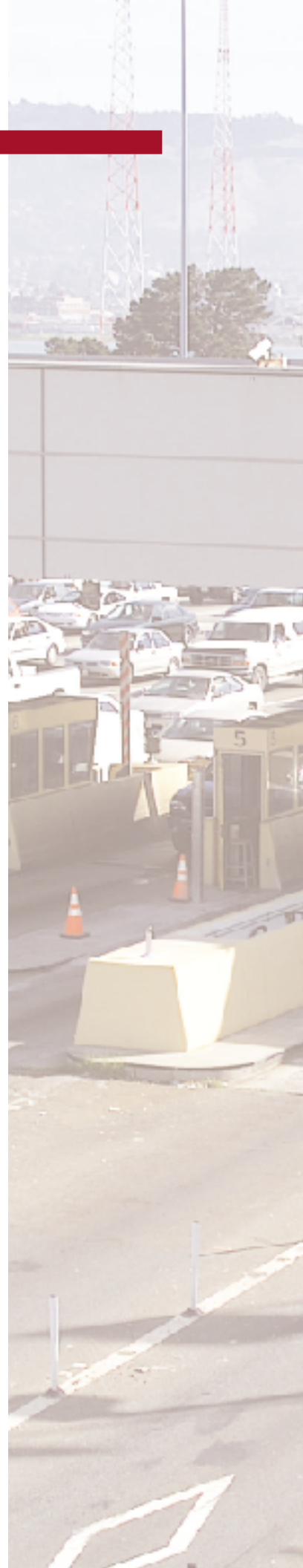
1. Easier	12%	
2. About the same	77%	(skip to 27)
3. More difficult	8%	(skip to 26b)
4. Refused/don't know	3%	(skip to 27)

26a. Why is it easier? [select up to 3]

1. Changed my home or work location	44%	(1+ skip to 27)
2. New bike lane	22%	
3. Found someone to ride with	0%	
4. Improved facilities to lock bike or change clothes, etc.	0%	
5. Other	0%	
6. Refused/don't know	33%	

26b. Why is it more difficult? [select up to 3]

1. Changed my home or work location	0%	(1+ skip to 27)
2. Traffic is worse	50%	
3. Less safe to ride on streets	0%	
4. No safe place to lock bike	0%	
5. Other	50%	
6. Refused/don't know	0%	



27. About how many miles do you travel to work one-way? mean = 16.5 miles

28. How many minutes does your commute to work take door to door?
mean = 33.6 minutes

29. Is there a special diamond lane, that can be used only by carpools, vanpools and buses, along your route to work?

- | | | |
|-----------------------|-----|--------------|
| 1. Yes | 40% | |
| 2. No | 59% | (skip to 35) |
| 3. Refused/don't know | 1% | (skip to 35) |

30. Do you regularly use the diamond lane to get to work?

- | | | |
|-----------------------|-----|--------------|
| 1. Yes | 65% | |
| 2. No | 35% | (skip to 35) |
| 3. Refused/don't know | 0% | (skip to 35) |

31. Does the diamond lane save you time in getting to work?

- | | | |
|-----------------------|-----|--------------|
| 1. Yes | 80% | |
| 2. No | 20% | (skip to 33) |
| 3. Refused/don't know | 0% | (skip to 33) |

32. How many minutes does it save you? mean = 23 minutes

33. Did the diamond lane influence your decision to carpool or ride transit?

- | | |
|-----------------------|-----|
| 1. Yes | 69% |
| 2. No | 31% |
| 3. Refused/don't know | 0% |

34. Would you continue to carpool or ride transit if the diamond lane did not exist?

- | | |
|-------------|-----|
| 1. Yes | 8% |
| 2. No | 60% |
| 3. Not sure | 32% |
| 4. Refused | 0% |

35. What is the zip code where you live? _____

[ask 36 only if they do not know their zip code in 35]

36. What city do you live in? _____

37. How long ago did you last change your residence? _____ years, or
_____ months mean = 7.6 years

38. What is the zip code where you work? _____

[ask 39 only if they do not know their zip code in 38]

39. What city do you work in? _____

40. How long ago did you last change your work location?

_____ years, or _____ months mean = 5.7 years

41. Is there free all-day parking at or near your worksite?

- | | |
|-----------------------|-----|
| 1. Yes | 78% |
| 2. No | 21% |
| 3. Refused/don't know | 1% |

42. How many employees work for your company at your site?

- | | |
|-----------------------|-----|
| 1. 0-50 | 41% |
| 2. 51-100 | 13% |
| 3. 101-500 | 21% |
| 4. More than 500 | 22% |
| 5. Refused/don't know | 2% |

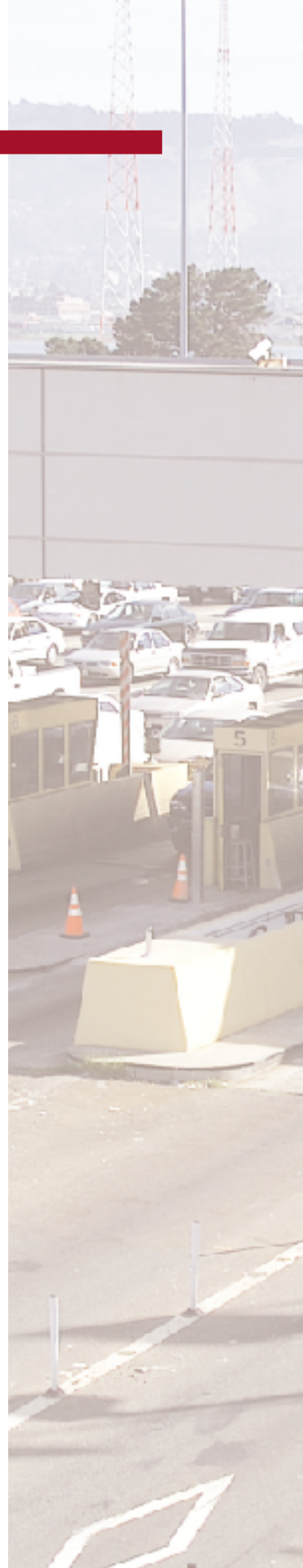
43. Does your employer encourage employees to use transit, carpool, bicycle or walk to work?

- | | |
|-----------------------|-----|
| 1. Yes | 41% |
| 2. No | 54% |
| 3. Refused/don't know | 4% |

44. As part of your employment, do you have the opportunity to work at home instead of going to your regular place of work?

- | | | |
|-----------------------|-----|--------------|
| 1. Yes | 22% | |
| 2. No | 78% | (skip to 47) |
| 3. Refused/don't know | <1% | (skip to 47) |

45. Approximately how many days per month do you work at home instead of at your regular place of work? mean = 4.3



46. Would you say you make more, fewer or about the same number of trips with your car on days that you work at home? [select one]

- | | |
|-----------------------|-----|
| 1. More | 12% |
| 2. Fewer | 52% |
| 3. Same | 28% |
| 4. Refused/don't know | 9% |

47. Are you familiar with Park and Ride lots and how they work?

- | | | |
|------------------|-----|--------------|
| 1. Yes | 63% | |
| 2. Somewhat | 10% | |
| 3. No/don't know | 27% | (skip to 52) |
| 4. Refused | <1% | (skip to 52) |

48. Is there a Park and Ride lot along your route to work?

- | | |
|------------------------|-----|
| 1. Yes | 31% |
| 2. No | 60% |
| 3. Not sure/don't know | 9% |
| 4. Refused | 0% |

49. Have you ever used a Park and Ride lot for your commute to work?

- | | | |
|-----------------------|-----|--------------|
| 1. Yes | 12% | |
| 2. No | 87% | (skip to 52) |
| 3. Don't know/refused | <1% | (skip to 52) |

50. In the past year, how frequently have you used a Park and Ride lot for your work commute?

- | | |
|-----------------------------|-----|
| 1. Not at all | 44% |
| 2. A few times/occasionally | 35% |
| 3. A few days each month | 4% |
| 4. A few days each week | 7% |
| 5. Every day | 8% |
| 6. Refused | 2% |

Please tell me if you *strongly agree*, *agree*, *disagree* or *strongly disagree* with the following statements:

51. Park and Ride lots are a convenient place for me to meet carpools, vanpools and public transit.

- | | |
|----------------------|-----|
| 1=Strongly agree | 27% |
| 2=Agree | 52% |
| 3=Disagree | 9% |
| 4=Strongly disagree | 7% |
| 5=Refused/no opinion | 6% |

51a. Park and Ride lots are well-maintained facilities in terms of pavement, landscaping, lighting and signage.

1=Strongly agree	15%
2=Agree	63%
3=Disagree	11%
4=Strongly disagree	2%
5=Refused/no opinion	9%

51b. Park and Ride lots are a safe place to leave a car.

1=Strongly agree	11%
2=Agree	59%
3=Disagree	18%
4=Strongly disagree	3%
5=Refused/no opinion	10%

51c. I feel personally safe while waiting at a Park and Ride lot.

1=Strongly agree	14%
2=Agree	63%
3=Disagree	12%
4=Strongly disagree	2%
5=Refused/no opinion	10%

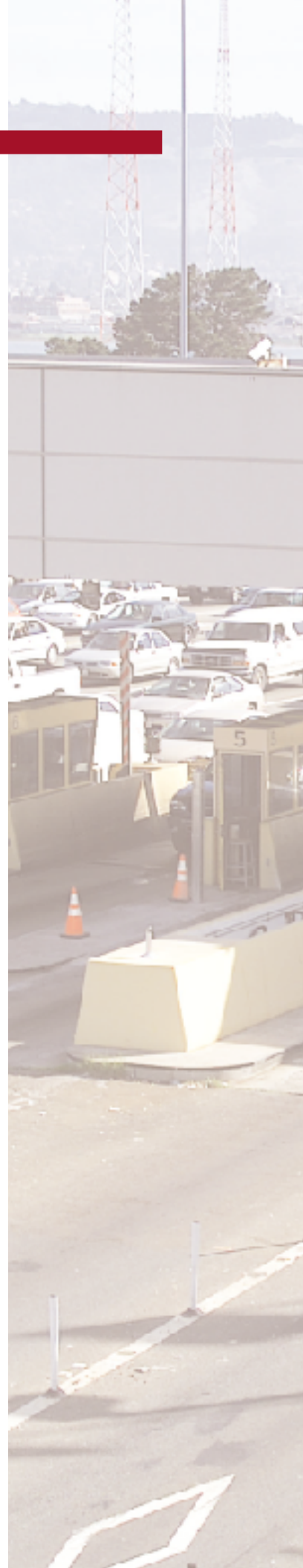
51d. I would be more likely to use a Park and Ride lot if I had more information on how they work and where they are located.

1=Strongly agree	12%
2=Agree	33%
3=Disagree	29%
4=Strongly disagree	12%
5=Refused/no opinion	14%

[questions for primary mode = drive alone Q8=1]

52. How possible would it be for you to carpool at least one or two days a week? Would it be ...[read choices; select one]

1. Very possible	12%	(skip to 54)
2. Somewhat possible	11%	(skip to 54)
3. Slightly possible	11%	
4. Not at all possible	65%	
5. Refused/don't know	1%	(skip to 54)



53. Why is it difficult to carpool to work? [select a maximum of 3]

- | | |
|--|-----|
| 1. Takes too much time | 6% |
| 2. Desire privacy | 3% |
| 3. Need vehicle during work | 12% |
| 4. Need vehicle before/after work | 6% |
| 5. Transport children | 5% |
| 6. Safety | <1% |
| 7. Work irregular hours | 27% |
| 8. Work overtime | 1% |
| 9. Prefer to drive alone | 3% |
| 10. Can't find carpool or vanpool partners | 30% |
| 11. Never considered carpooling | 3% |
| 12. Other | 4% |
| 13. Refused/don't know | 1% |

54. How possible would it be for you to use transit at least one or two days a week? Would it be ...[read choices; select one]

- | | | |
|------------------------|-----|--------------|
| 1. Very possible | 11% | (skip to 56) |
| 2. Somewhat possible | 11% | (skip to 56) |
| 3. Slightly possible | 8% | |
| 4. Not at all possible | 69% | |
| 5. Refused/don't know | 1% | (skip to 57) |

55. Why is it difficult to use transit to get to work? [select a maximum of 3]

- | | |
|--|-----|
| 1. Takes too much time | 24% |
| 2. Desire privacy | 2% |
| 3. Need vehicle during work | 13% |
| 4. Need vehicle before/after work | 5% |
| 5. Transport children | 6% |
| 6. Safety | 1% |
| 7. Work irregular hours | 13% |
| 8. Work overtime | 1% |
| 9. Transit unreliable | 7% |
| 10. Prefer to drive alone | 2% |
| 11. Cost/too expensive | 1% |
| 12. No service available on my commute | 18% |
| 13. Never considered using transit | 3% |
| 14. Don't know how to use transit | 1% |
| 15. Other | 4% |
| 16. Refused/don't know | 1% |

56. If you were able to take transit which transit agency would you use?

[select up to 3]

1. BART	24%
2. AC Transit	8%
3. Muni	6%
4. Golden Gate Transit and Ferry	5%
5. SamTrans	3%
6. Valley Transportation Authority (Santa Clara)	7%
7. County Connection (Contra Costa)	2%
8. Caltrain	9%
9. Other local service	16%
10. Don't know	20%

57. How possible would it be for you to bicycle all or part of the way to work at least one or two days a week? Would it be ...[read choices; select one]

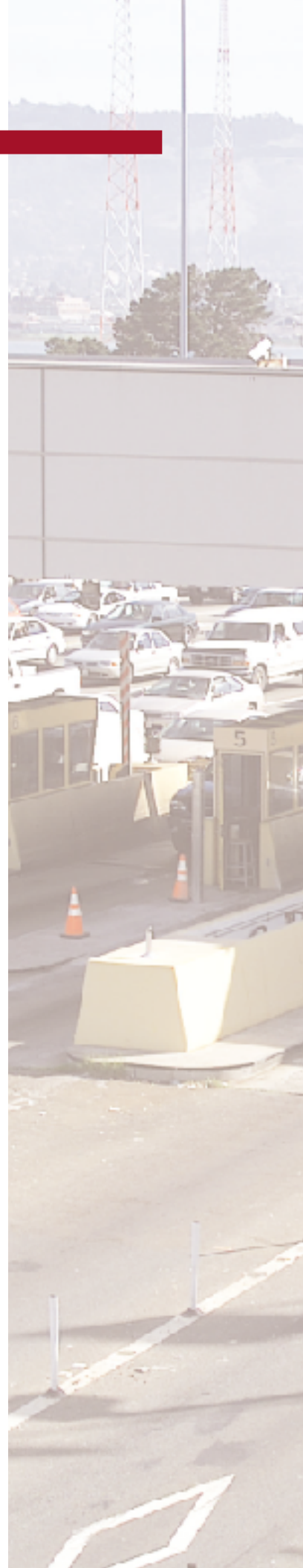
1. Very possible	13%	(skip to 59)
2. Somewhat possible	7%	(skip to 59)
3. Slightly possible	5%	
4. Not at all possible	74%	
5. Refused/don't know	1%	(skip to 59)

58. Why is it difficult to ride a bicycle to work? [select a maximum of 3]

1. I don't ride or own a bike	9%
2. Too far to ride	48%
3. Can't ride in work clothes	3%
4. Don't feel safe riding to work	10%
5. No safe place to park/lock my bike	2%
6. No place to change/shower at work	1%
7. Takes too much time	6%
8. Need car at work or before/after work	95%
9. Need to get in better shape first	35%
10. Never even considered it	75%
11. Refused/don't know	2%

59. Would you be willing to take a carpool passenger on a full or part-time basis if it increased your travel time by less than 5 minutes?

1. Yes	50%
2. No	46%
3. Refused/don't know	4%



[questions for all respondents]

60. Have you ever heard of the phone number (800) 755-POOL?

- | | | |
|-----------------------|-----|--------------|
| 1. Yes | 43% | |
| 2. No | 57% | (skip to 62) |
| 3. Refused/don't know | <1% | (skip to 62) |

61. Can you describe the types of services offered through (800) 755-POOL?

[select up to 3]

- | | |
|--|-----|
| 1. No | 38% |
| 2. Traffic information | 2% |
| 3. Transit information | 2% |
| 4. Carpool/vanpool information | 57% |
| 5. Highway construction information | <1% |
| 6. Airport ground transportation information | <1% |
| 7. Bicycle program information | <1% |
| 8. Other | 1% |
| 9. Refused | 1% |

[Qs 62 and 63 for Solano and Napa respondents only]

62. Have you ever heard of the phone number (800) 53-KMUTE?

- | | | |
|-----------------------|-----|--------------|
| 1. Yes | 24% | |
| 2. No | 73% | (skip to 67) |
| 3. Refused/don't know | 3% | (skip to 67) |

63. Can you describe the types of services offered through (800) 53-KMUTE?

- | | |
|--|-----|
| 1. No | 61% |
| 2. Traffic information | 3% |
| 3. Transit information | 3% |
| 4. Carpool/vanpool information | 30% |
| 5. Highway construction information | 0% |
| 6. Airport ground transportation information | 0% |
| 7. Bicycle program information | 0% |
| 8. Other | 0% |
| 9. Refused | 2% |

[Qs 64 and 65 for Contra Costa County respondents only]

64. Have you heard of commute incentives available for people who either work or live in Contra Costa County?

- | | | |
|-----------------------|-----|--------------|
| 1. Yes | 20% | |
| 2. No | 80% | (skip to 66) |
| 3. Refused/don't know | <1% | (skip to 66) |

65. Can you name any of the available incentives? [select all that apply]

- | | |
|-------------------------|-----|
| 1. No/don't know | 56% |
| 2. Vanpool | 14% |
| 3. Transit tickets | 13% |
| 4. Carpool (script) | 15% |
| 5. Guaranteed Ride Home | 3% |
| 6. Refused | 0% |

[Q66. for Alameda, Contra Costa and Santa Clara County respondents only]

66. Are you aware of a program that provides a Guaranteed Ride Home from work for individuals who carpool or use transit to get to work?

- | | |
|-----------------------|-----|
| 1. Yes | 12% |
| 2. No | 88% |
| 3. Refused/don't know | <1% |

[questions for all respondents]

67. Are you aware that you can get a tax break for using public transit?

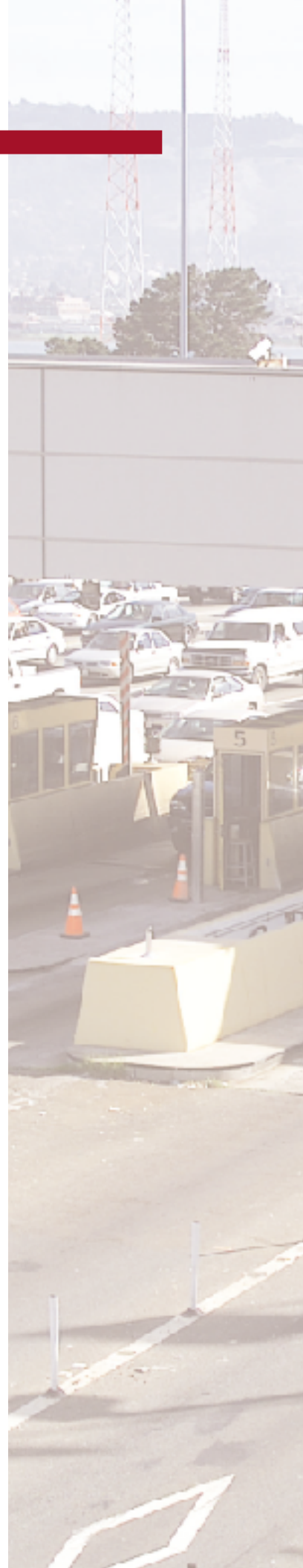
- | | |
|-----------------------|-----|
| 1. Yes | 17% |
| 2. No | 82% |
| 3. Refused/don't know | 1% |

68. Have you ever heard of the phone number 817-1717?

- | | | |
|-----------------------|-----|--------------|
| 1. Yes | 7% | |
| 2. No | 93% | (skip to 71) |
| 3. Refused/don't know | <1% | (skip to 71) |

69. Can you describe what types of information is available by calling 817-1717?
[select up to 3]

- | | |
|--|-----|
| 1. No | 41% |
| 2. Traffic information | 22% |
| 3. Transit information | 22% |
| 4. Carpool/vanpool information | 12% |
| 5. Highway construction information | <1% |
| 6. Airport ground transportation information | 1% |
| 7. Bicycle program information | 0% |
| 8. Other | 1% |
| 9. Refused | 1% |



70. How did you hear about the phone number 817-1717? [select up to 3]

1. Billboards	54%
2. Magazine	12%
3. Radio	2%
4. TV	10%
5. Newspaper	7%
6. Friend/co-worker	3%
7. Community event	5%
8. Employer event	0%
9. Other	2%
10. Don't remember	6%

71. In which format, would you be most likely to use information on transit schedules?

1. Telephone information	20%
2. Brochures or other written material	27%
3. Touch screen kiosks	<1%
4. Fax	1%
5. Mobile phone	42%
6. Palmtop PCs	2%
7. Other	1%
8. Refused/don't know	7%

72. Do you have regular access to the Internet at home?

1. Yes	80%
2. No	20%
3. Refused/don't know	0%

73. Do you have regular access to the Internet at work?

1. Yes	75%
2. No	25%
3. Refused/don't know	<1%

74. Are you aware of transit, carpool or traffic information available via the Internet?

1. Yes	47%
2. No (skip to 76)	52%
3. Refused/don't know (skip to 76)	1%

75. How often do you access this information? Is it . . . [read choices; select one]

- | | |
|------------------------------|-----|
| 1. 3 or more times per week | 5% |
| 2. 1-2 times per week | 5% |
| 3. Less than once a week, or | 17% |
| 4. Never/rarely | 72% |
| 5. Refused/don't know | 1% |

[Q 76 not asked of Solano and Napa county respondents]

76. Have you ever heard of an organization called “RIDES for Bay Area Commuters”?

- | | |
|-------------------------------|-----|
| 1. Yes (skip to 78) | 20% |
| 2. No/don't know (skip to 78) | 80% |
| 3. Refused (skip to 78) | <1% |

[Qs 77 and 78 asked of Solano and Napa county respondents]

77. Have you ever heard of an organization called “Solano Commuter Information”?

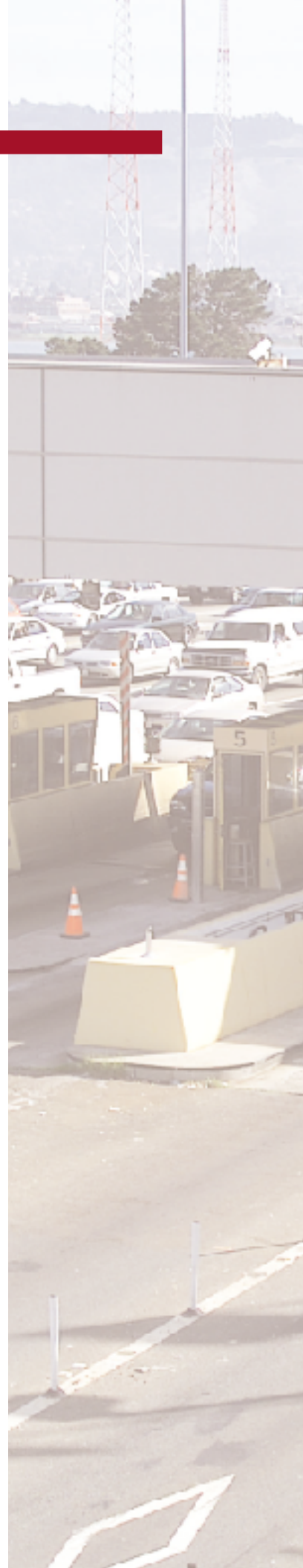
- | | |
|------------------------------------|-----|
| 1. Yes | 26% |
| 2. No (skip to 78) | 74% |
| 3. Refused/don't know (skip to 78) | <1% |

78. Do you always, sometimes or never have a vehicle available for getting to work?

- | | |
|------------------------|-----|
| 1. Always available | 90% |
| 2. Sometimes available | 5% |
| 3. Never available | 5% |
| 4. Refused/don't know | 1% |

79. How old are you? Are you . . .

- | | |
|-----------------|-----|
| 1. Less than 20 | 1% |
| 2. In your 20's | 18% |
| 3. 30's | 28% |
| 4. 40's | 27% |
| 5. 50's | 19% |
| 6. 60 or older | 6% |
| 7. Refused | 1% |





80. And what is your combined annual (before-tax) household income?
Is it ...

1. \$20,000 or less	5%
2. \$21,000 to \$35,000	12%
3. \$36,000 to \$50,000	15%
4. \$51,000 to \$65,000	9%
5. \$66,000 to \$80,000	11%
6. \$81,000 to \$100,000	11%
7. More than \$100,000	22%
8. Refused/don't know	15%

81. Gender of respondent: [Do not need to ask]

1. Male	50%
2. Female	50%

Those are all the questions I have for you. Thank you very much for participating.

DEMOGRAPHIC VARIABLES AND MODE

Age, Income and Gender

Commuters above the age of 50 are more likely to drive alone and less likely to carpool than are younger commuters (Table 42). The youngest commuters (under the age of 20) are the most likely to carpool and use “other” modes—unfortunately they are also the smallest group, making up only one percent of commuters.

The percentage of respondents driving alone goes up as household

income increases (Table 43). Only 49% of respondents from households with incomes under \$20,000 drive alone while 75% of respondents from households with incomes above \$81,000 drive alone. Transit and carpooling are the most commonly used alternatives for the lower income group. Female respondents are less likely to drive alone (Table 44). Only 65% of women drive alone while 74% of men do so.







TABLE 42					
Age and Commute Mode					
				OTHER	TOTAL
Younger than 20 (1% of respondents)	64%	23%	5%	8%	100%
20 to 29 (18% of respondents)	66%	20%	10%	4%	100%
30 to 39 (28% of respondents)	64%	21%	12%	4%	100%
40 to 49 (27% of respondents)	69%	20%	8%	3%	100%
50 to 59 (20% of respondents)	78%	9%	9%	4%	100%
60 or older (6% of respondents)	81%	8%	8%	4%	100%
Regional Average	69%	17%	10%	4%	100%
n=3,579					



TABLE 43

Household Income and Commute Mode




				OTHER	TOTAL
Less than \$20K (5% of respondents)	49%	28%	17%	6%	100%
\$21K to \$35K (14% of respondents)	64%	19%	13%	4%	100%
\$36K to \$50K (18% of respondents)	66%	19%	10%	4%	100%
\$51K to \$65K (11% of respondents)	70%	18%	10%	2%	100%
\$66K to \$80K (13% of respondents)	73%	16%	7%	4%	100%
\$81K to \$100K (13% of respondents)	75%	15%	8%	3%	100%
More than \$100K (26% of respondents)	75%	15%	7%	4%	100%
Regional Average	69%	17%	10%	4%	100%
n=3,082					

Duration

Commuters who drive alone stick with that mode longer than users of other modes (Table 45). Commuters who carpool, possibly as a result of the need to match and coordinate with other commuters, stick with that mode for the shortest average duration. Individuals who have been at the same residence for a long time

(more than 15 years) have a higher drive-alone rate (Table 46); the drive-alone rate for those who have been living in the same location for over 15 years is 83%. For commuters who have been at their current residence less than 15 years, the drive-alone rate ranges from 65% to 68%. A similar pattern exists for those who have been at their current work location

TABLE 44
Gender and Commute Mode




				OTHER	TOTAL
Male (50% of respondents)	74%	13%	9%	4%	100%
Female (50% of respondents)	65%	22%	10%	3%	100%
Regional Average	69%	17%	10%	4%	100%
n=3,616					

for a relatively long time. The drive-alone rate for those who have been there more than 15 years is around 80% while the rate for those who have been there less than 15 years is around 68%.

Vehicle Availability

Almost all respondents (95%) to this survey have a vehicle available for their commute “always” or “sometimes” (Table 47). For 90% a vehicle is always available. Availability varies a bit from county to county. San

TABLE 45
Years in Current Mode

			OTHER	
2001	11	6	6	4
2000	12	5	6	4
1999	11	6	5	4
1998	13	6	5	3
4 yr. average	12	6	5	4





San Francisco stands out as being the least auto dependent. Over 16% of San Francisco residents who responded to the survey “never” have a vehicle available for their commute.

As one might guess, vehicle availability has a strong influence on mode choice. For those who drive alone, 97% “always” have a vehicle available. For those who carpool, “always available” drops to 91% and for those who use transit as their primary commute mode it drops significantly to 56%.

TABLE 46

Last Changed Home or Work Location

	Residence	Work Location
Less than 1 Year	14%	21%
1 – 3 Years	31%	36%
4 – 6 Years	17%	16%
7 – 9 Years	8%	5%
10 – 15 Years	16%	13%
More than 15 Years	15%	9%
n=	3,616	3,616

TABLE 47

Vehicle Availability by County

County	Always	Sometimes	Never
Alameda	89%	6%	5%
Contra Costa	95%	4%	2%
Marin	94%	4%	3%
Napa	95%	3%	3%
San Francisco	75%	9%	16%
San Mateo	92%	5%	4%
Santa Clara	94%	5%	2%
Solano	96%	3%	1%
Sonoma	96%	3%	1%
Regional Average	90%	5%	5%
n=3,582			



RIDES is dedicated to helping San Francisco Bay Area commuters learn about and use alternatives to driving alone. Funding for RIDES' services is provided by the Bay Area Air Quality Management District, the Metropolitan Transportation Commission and county congestion management agencies.

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